6-1975

A pilot study: result of menu presentation system change

Stella Manikas Copulos
Florida International University

DOI: 10.25148/etd.FI14061508

A PILOT STUDY: RESULT OF MENU PRESENTATION SYSTEM CHANGE

A THESIS

Presented to the Faculty of the Hotel School

of Florida International University for the Degree

of

Master of Science

by

Stella M. Copulos

June 1975

VITA

Stella Manikas Copulos was born June 14, 1936 at Herkimer, New York. She received the degree of Bachelor of Science in Institutional Management from the University of Miami, Coral Gables, Florida in February 1958. Following graduation she became Assistant Director of the Tides Conservatory of Fine Arts in Coral Gales, Florida. As the Assistant Director, she instituted courses in Foods and Nutrition. In addition, from 1959 to 1963 she co-produced a weekly program on Channel 10 WPST-TV featuring business management and nutrition. From 1963 to 1969, as foods correspondent for the Miami Herald newspaper, Miami, Florida she established an experimental foods kitchen.

During these six years of testing, experimenting and evaluating for the foods section of the Miami Herald, the goal of influencing the attitude of the American public to form good habits in nutrition was established.

From 1969 to 1971 she researched various theories for motivating individuals. During this time she evolved the hypothesis presented in the research. She concluded that an institutionalized population was the means needed to test the hypothesis. She used the comparative control group and experimental group procedure to scientifically authenticate documentation of the results. Such research stresses a quantitative approach where measurement is an important aspect.

She became associated first with Doctors Hospital, Coral Gables, Florida, then with Palm Springs Hospital, Hialeah, Florida. In 1974 during December she was appointed Chief Dietitian of Baptist Hospital, Miami, Florida where the opportunity to scientifically authenticate her hypothesis was afforded.

ACKNOWLEDGMENT

The author expresses sincere appreciation to Assistant Professor Bonny R. Prentiss, R.D. the major professor in this research, for her interest and guidance throughout the manuscript preparation. A special thanks to Dr. Norman H. Ringstrom, Professor for his perceptive analysis of the problem, and to Dr. Anthony G. Marshall, Associate Dean of the School of Hotel, Food and Travel Services for his help. To Dr. Gerald W. Lattin, Dean of the School of Hotel, Food and Travel Services, a special accolade for his deep understanding, sincere support, definitive action and review of the manuscript. Deepest thanks is expressed to Ms. Roberta M. Parkes, R.D., Food Service Director, Palm Springs General Hospital for her encouragement in the nutrition motivation concept.

Especially appreciated was the cooperation and encouragement of Mr. Arthur Mellios, Food Service Director, Baptist Hospital of Miami, home of the research project.

To the food service employees, diet aides, supervisory personnel, cooks and dietitians at Baptist Hospital my sincere gratitude for their individual efforts which satisfied the exacting procedures.

My deepest thanks are expressed to my husband and children for their inspiration, untiring devotion and moral support throughout my graduate work.

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INTRODUCTION

Attempts to modify dietary habits of individuals in order to improve their nutrition do not seem to have met with success. Patterns established by individuals appear to continue throughout their lifetime. Diet patterns are influenced by society, families, and peer groups.

From pre-school through adolescence environmental factors of influence are ever present. Influences may be the result of hereditary attitudes passed from generation to generation. However, the need for diet improvement seems primary. Research to discover methods or systems to affect such habits is needed from the science of nutrtion.

The continued failure of man to produce food for the subsistance of all mankind and the power of population overshadows the power of food production. The resulting problems of food shortages, malnutrition, starvation and disease compound the previously stated problems of attempted dietary change.

The cost of developing animal protein exceeds the cost of cultivating plants. Therefore, nutritionists have encouraged decreasing consumption of animal protein and increasing consumption of plants to balance this factor. By this method they have helped to keep the cost of a nutritionally balanced meal within everyone's reach. By increasing consumption of plant life, some diets could be improved. This increased plant consumption would also decrease the need

for animal consumption. Synergistic combinations of vegetables have been found to be as nutritious as animal sources.

With these thoughts in mind this research explores one technique which might be utilized in a hospital environment to accomplish one end--the increase in plant or vegetable consumption.

STATEMENT OF THE PROBLEM

Recommendation

To increase plant protein consumption in a hospital situation, it is recommended that a change of menu presentation be the motivating factor.

Hypothesis

To learn if forced exposure of hot vegetables served with a main dish selection increases vegetable consumption.

Purpose

To modify attitudes toward plant protein foods.

REVIEW OF LITERATURE

Historical Significance of Nutrition

The science of nutrition, relatively new to the scientific community, has been recognized as a distinct discipline since 1934 concurrent with the organization of the American Institute of Nutrition (1).

At the turn of the century, experiments with the respiration calorimeter established quantitatively energy relations of nutrition in man setting the foundation for building human nutrition into the architecture of an exact science. A short time later, protein chemistry of nutrition reached the climax of its experimental enlightenment by correlating chemical natures of proteins with their nutritional functions and relationships: the building and repair of body tissue; regulatory substances for internal water or acid base balances; precursors for enzymes, antibodies, some hormones and one of the B vitamins; milk formation, and for energy (2).

This development of the "Nutritionally Essential" quality of proteins was followed by the "Nutritionally Essential" quality of mineral elements. Todhunter et al. (3), note the discovery of ash constituents or mineral elements in nutrition namely, calcium, phosphorus, magnesium, iron and other minerals as additions to the list of nutrients essential to man.

The realization of nutritive value in foods encouraged research leading to the fourth major discovery in nutrition. The discovery of the existence in foods and the importance in nutritional aids in a whole group of substances vital to life called vitamins made the interrelationships of energy, protein, mineral elements and vitamins synergistic. Sherman (4), considered this interrelationship sufficiently important to label it a fifth general aspect of the chemistry of food and nutrition. It is apparent that nutrition, relying on the discoveries in the disciplines of chemistry and biology, had to await the emigration of these sciences from the panorama of interdisciplinary experimentation to be recognized as a separate science.

Father of the science of nutrition is considered to be Lavoisier (1743-1794). He showed the similarity between the oxidation of a suitable organic substance in the body and the burning of a fuel in a flame; he made quantitative experiments upon the rate of oxidation in the body under various conditions. Lavoisier is credited with the origin of the study of the energy metabolism (4).

McLester and Darby (5), define nutrition as "the sum of those processes by which the living organism receives and utilizes the materials necessary for the maintenance of life."

Scholars of nutrition agree it is concerned with the changes that occur in food and the way in which the body ingests, digests, absorbs, transports, utilizes and excretes food substances (1).

There are 40 to 45 nutrients highly important to life and physical fitness. Bogart et al. (2), describe the delicate balance of these nutrients and the necessity for ingestion on a regular basis. Their definition of nutrition is, "the science of food as it relates to optimal health and performance."

One of the basic divisions of food is vegetable (and fruit). Among the major nutrients derived from this division are vitamin A and vitamin C. The per capita consumption of vegetables decreased markedly from 315.9 lbs. in 1960 to 223 lbs. in 1973 (6). This is a drop of approximately 30% when statisticians had predicted an increase of 25% for the previous year (7). The spread between the actual and the predicted totaled 55%. If the consumption of vegetables is not increased to acceptable levels, it could be one of the factors responsible for nutritional deficiencies with attendant disease a consequence.

Chaney and Ross (8), in dietary studies over the last two decades indicate nutritional deficiencies of ascorbic acid (vitamin C) and vitamin A due to inadequate intake. Deficiencies of ascorbic acid and vitamin A occur in all age groups. Improper diet with low consumption of those foods rich in ascorbic acid and vitamin A are contributing factors.

FACTORS AFFECTING FOOD CHOICES

Life Cycle

Infants

Foman (9), in discussing Beikost feeding of infants states that until 1911 vegetables were not recommended before thirty-six months and even by 1929, green vegetables were not recommended before nine months of age. Not until 1963 did infants of one and two months receive solid foods although Sackett (10) had well demonstrated infant's tolerance of extremely early introduction of cereal and strained foods by feeding cereal on the second or third day of life, and introduced vegetables at age ten days.

Baby food manufacturers market two types of vegetables--plain and creamed. Whether this has any effect on the child's attitude toward vegetables later in life is not established. However, extensive use of highly sweetened foods during early life may establish a taste for sweet foods with dental caries a consequence. Development of hypertension could easily be the result of exposing the infant to certain commercially available strained and junior foods with a high sodium content (9). The effect additives have on babies as well as adults has been researched.

The danger of additives to a diet depend on two factors: the inherent toxicity and how much is eaten. Hall (11) in research on additives states sugar is number one followed by salt, corn syrup, dextrose and 1826 others. Where the

consumption of the number one additive, sugar is 102 lbs. per year per capita, the consumption of the median additive No. 915 is one-half of a milligram per year per capita. The comparison of 102 lbs. of sugar to approximately one grain of table salt is an example of what Paraclesus, a renaissance physician once said, "Sola Dosis Facti Venenum", which says only the dose makes the poison.

Adolescents

Snacking habits of children and teens are greatly influenced by television advertising campaigns. Commercials tend to teach children that one eats because it is fun, it is sweet, or it is a way to get a toy. Instead of contributing to good health and nutrition, the medium instead is an exponent of falsehood, misinformation and misleading persuasion. To combat this unconscionable influence adolescents must be taught the positive points of snacking, combining fun with nutritional activity and information (12).

Recognizing the consequences of this persuasion, the American Dietetic Association's position paper on nutrition education (13) cites the importance of selecting a nutritionally adequate diet in today's food choices. It urges the fast food industry to provide nutrition education and the opportunity for improved food practices to the consumer. Guidelines include nutrition programs for patrons, standards of food service delivery for employees, and Registered Dietitians as directors of evaluation programs for patrons and employees.

An example of success in diet training is located in New York City's Greenwich Village. It is a multiservice youth center, The Door. Frankle et al. (14) reported on the nutrition counseling service, a part of the interdisciplinary team providing nutrition education and therapeutic nutrition counseling. Young people with drug problems have been helped by the suggestion to live in harmony with the body rather than by disparaging it.

Guthrie (1) discovered that application of sound nutritional principles succeeds where the effective motivational influence is discovered. Old habits are unlearned and replaced with new habits. Planning is the key to good diets.

A survey conducted in Israel of the eating habits and opinions of adolescents on nutrition and obesity showed they had considerable knowledge and usually practiced good habits.

These cildren were aware of the need for limiting amount of foods eaten, the "fattening" characteristics of certain foods but underrated the importance of physical exercise. Opinions expressed on nutrition and causes of obesity reflected a sound knowledge of basic nutrition (15).

Methods used to improve nutritional choices include a study conducted to establish factors which influence students' acceptance or rejection of vegetables, presented color as linked to favorable taste expectations, texture contributing to mouth-feel experience, taste preference to sweet, and odor response negative to cooked vegetable odor. Other factors contributing to negativism were traumatic personal experiences

with food, prejudice through closed mind or preconceived notions and associative reminders of body wastes, fluids or secretions.

Pregnant Adolescents

Weigley (17), in research studies of the pregnant adolescent notes that suboptimal food intake is common. Neither supplements nor counseling results in success. It seems logical to assume that poor eating habits have been well established early in life. Additional research is needed to discover a solution to the multiple social, psychological and economic problems of the pregnant adolescent that negate adequate nutritional performance.

Maternity

Maternal physical and nutritional contribution to the fetus is as important as genetic contribution from both parents. Maximal neuronal growth is impaired if the fetus is malnourished or delivered prematurely because of maternal disability. Courson (18) in his report emphasizes the importance of maternal physical and nutritional status during gestation.

Socioeconomic status maintains its importance. Women living in more prosperous circumstances have better lifetime dietary habits and enter into pregnancy with high nutritional status. The National Research's Council Committee on Maternal Nutrition (19) report that the lifetime dietary habits have

greater influence on the outcome of pregnancy than diet during pregnancy.

Socio-economic Influences

Food preferences are culturally determined from the socialization process of childhood through early adulthood (20).

Parents with higher income levels do not tolerate the child's choices whereas lower income groups are more lenient. However, lower income groups are prone to use food as reward and punishment (9).

Walker et al. (16) in a study to determine fruit and vegetable acceptance by students discovered strong parental influences. Exposure to foods influenced acceptance: 1) where parents had grown up in rural areas; 2) where vegetables from gardens supplied part of the food; 3) where either parent had been raised in a home where vegetables were served. When any of these three exposures were evidenced, their parents, in turn, served vegetables and student acceptance was optimum.

The research of Lowenberg (21) has shown that the child will not eat what he has been patterned to exclude. This pattern is the father's influence on the mother to exclude dislikes and include likes which in turn were patterned by his father's exclusions, et cetera ad infinitum. Change in the pattern will come when the individual wishes to make the change.

Cosper and Wakefield (22) in their recent experiment on food choices of women indicated that the strongest influence exerted on the wife was that of the husband. Following in rank order of influence were: 1) doctor, nurse or nutritionist; 2) parents, children, close friends; 3) neighbors; 4) church members; 5) easy to prepare meals. Advertising had the least influence.

However, sound nutrition today is probably a result of coincidences. The realities of this dilemma may be emphasized by noting that the criterion for the application of sound nutrition, no matter how lofty the mark, revolves around what food the mother places on the table and how it is utilized (23).

Elderly

The aging process is continuous from birth. However, biological age differs from chronological age. Recent experiments with rats showed that those on diets of restricted quantity live 50% longer than those on ad libitum diets. Leaf (24), in his gerontological studies documented the fact that frugal, nutritionally balanced low calorie diets in the early life will extend the total life span.

Dietary surveys of the elderly indicate a correlation between economic position and nutrition. A significant number of those in the lower income level consumed less than one-half the approved allowance for vitamin A and ascorbic acid (8).

In plans of long term care, such as nursing homes, the objective is to assist the patient to return to the optimal

functioning level. The present dietary intake measured against the optimal dietary intake is the patient's nutritional goal (25).

Bogart et al. (2) describe the results of surveys of the diets of old people indicating inadequate intake of ascorbic acid. The finding is typical of experience in Britain, New Zealand, Australia and the United States.

Leaf (24) periodically visited certain remote places in the world where it is not uncommon for people to live to the age of one hundred. These centigenarians retained their health and vigor. Dr. Leaf established conclusively that the dietary customs were in accordance with good nutrition. It is axiomatic to state that if the population is to live longer they must change their eating habits.

Instinct is not the best guide to good nutrition. Availability is the first consideration and experience the second. Instinct is instant and experience follows. Illness modifies food acceptance. Scientific planning is the only assurance of fulfilling physiologic needs (26).

To combat these various problems it seems that planning preventive care and intervention programs may be the real purpose of systems for continuous assessment of specific target populations known as surveillance programs, but there must be educational activity and motivation developed to change eating habits (27). Listening and being tuned in to the psychosocial responses will bring an understanding of the food preferences established from childhood through early

adulthood. Four skills for good listening are: discipline, concentration, comprehension and open-mindedness (20). This technique can be utilized to a great extent by consulting dietitians. They are in the best position to effect change.

Environment

Foman (9) lists other factors of a community that bear investigation in evaluating food influences as demographic characteristics, water and health problems. Knowledge of environmental deficiencies, racial and ethnic customs of groups within a population is invaluable to anticipating specialty food uses as influencing caloric intake and nutritional responsibility. Foman continues to say, milk and its fortifications with vitamins A and D is an indirect source of necessary nutrients as is enrichment of commercially baked bread and rolls. These along with water sources, fluoridation, and iodized salt should be investigated as sources of nutrition, the total action of which involuntarily counter-balances some of the population's nutritionally deficient diet.

Economic status combines with educational level and sound nutrition to form the indomitable triumverate of environmental influence. A low economic status or low educational level has poor nutrition as a combing factor. Conversely, a high educational level or high economic status has sound nutrition as a counterpart. Sound nutrition is at the mercy of economic status or educational level. The science of nutrition must explore all avenues of communication

to discover a media that will bring an understanding, acceptance and application of its principles to the population (28).

As an example, in a survey conducted in rural negro households in Mississippi, the highest percentage of dietary inadequacy was found at the lowest income levels. This was established as $500 per capita per year (1973 level). Below this level biochemical evidences of malnutrition and low growth rate were observed.

Tribes of the warm springs reservation in Oregon have wild plants as part of their normal diet. Recent ecological concern supported research on food composition of these wild plants. Values are reported for ascorbic acid, thiamin, riboflavin and several minerals, as well as amino acids of the camas root. Ascorbic acid was of high value in the fresh samples (29). This supports the author's thesis of the importance of increasing plant consumption.

Vegetarians and Faddists

Following a vegetarian diet can be dangerous to one unschooled in sound nutrition. Hardings and Crooks (30) in their examples of near non-flesh and non-flesh diets proved that widely different dietary practices appear among vegetarians and near-vegetarians providing nutritionally adequate and inadequate diets. Acceptable pure vegetarian diets combine unrefined grains, legumes, a variety of vegetables, including the leafy kind, and abundance of fruits to obtain adequate calories. Inadequate vegetarian diets include: a) Vegan diets which reportedly produce some B-12 deficiency; b) grossly unbalanced near-vegetarian diets in which 95% of the calories are provided by starchy foods; c) diets with insufficient caloric intake for maintenance requirements. Register and Sonnenberg (31) state that practical considerations in the planning of a vegetarian diet is the application of basic concepts of good nutrition with few but important modifications. In essence, one should choose a wide variety of foods with a minimum number of refined products.

Even vegetarian diets can insure adequate nutrition through careful selection of foods. Instead, the new vegetarians, a motley group of disassociating individuals, reject nutrition scientists. They choose philosophical or esthetic qualities over nutrition science. Their present attitude of abstention is the reciprocal of their former habits of drugs, alcohol and cigarettes (32).

A tragic consequence of the new vegetarians is the starved child. Malnutrition of the infant is not at all unlike that seen in the developing countries where ignorant mothers follow similar infant feeding practices (33).

Erhardt (34) states: the Zen Macrobiotic order provides that if one follows the religious teachings once food is ingested it is "transmuted" into elements needed by the body.

Register (31) describes the Zen regimen as consisting of ten diets ranging from the lowest level (diet -3) which includes fruits, vegetables and some animal products in addition to cereals to the highest level (diet 7) made up entirely of cereals. Persistent use of the more rigid diets can lead to the development of serious nutritional deficiencies. There have been cases of scurvy, anemia, hypoproteinemia, hypocalcemia, emaciation due to starvation, and other forms of malnutrition. In addition, loss of kidney function due to restricted fluid intake are reported, some of which resulted in death.

Erhardt (34) describes the practice of groups referred to as vegans. Veganism is the philosophy and practice of compassionate living. Vegans abstain from meat or any food of animal origin. Food is eaten in its whole unprocessed natural state. Vegan philosophy is part of their nutrition procedure in that they avoid killing, harming and exploiting animals. Nutritional inadequacy of gruel formulas fed children is evidenced by the failure of the children to grow.

The scientific approach of the nutritionist is reversed in the exercise of "Faddism." Kupsinel of Florida International University (35) states, as part of the problem, that claims of the food faddist are often supported by authoritative research or necessary restrictions for people with medically diagnosed conditions. However, the faddist generalizes the claim for all the population.

Schafer and Yetley (36) speculating on behavioral characteristics of food faddists list eight psychological needs dealing with ego, patterns, and self-realization and the type of faddist served by them. They are as follows:

1. Miracle seeker
2. Anti-establishmentarian
3. Super health seeker
4. Distruster of medical profession
5. Fashion follower
6. Authority seeker
7. Truth seeker
8. One concerned with uncertainties of living

Misinformation and Knowledgeability

Recently the American Dietetic Association published a position paper on food and nutrition misinformation (37). It states, nearly all edible foods may be classified as natural and health foods because they contribute nutritionally to man's diet. In the opinion of this group, healthy normal individuals consuming an adequate diet do not need vitamin, mineral and dietary supplements.

Leverton (38) discusses the behavioral characteristics of the self-appointed nutrition experts that are qualified simply on the basis that they eat food regularly.

Others are eager beavers who demand one hour graduate courses in nutrition with no background in chemistry or physiology. The well meaning scientist with too little knowledge and fewer facts about nutrition, food composition and human behavior related to food can exert serious influence. These are a small number of the total who are here to stay. Innovative methods must be found to render their meddling harmless.

Alfin-Slater and Aftergood (39) consider the abundant food supply in this country of sufficient yield for the population to maintain nutritionally adequate diets. However, scarcity of nutritionally knowledgeable persons in contra-distinction to abundance of nutritionally ignorant persons create an imbalance reflected in maximum consumption of the easily prepared high carbohydrate regimen.

As a member of the health care team in institutions and agencies, the dietitian is being called on more and more to make recommendations of a specific nature in the management of patients. The dietitian is becoming part of a group that gives orders, one who puts ideas into action.

The team approach to nutritional care gives the dietitian full responsibility for the nutritional needs of the patient. Interpreting the physician's orders and individualizing them according to the patient's food habits, while maintaining the therapeutic needs of the diet, are direct responsibilities. Robinson (26) in assessing this approach includes evaluation of patient response and subsequent counseling in the home as part of the responsibility.

The individual who sustains a myocardial infarction may not follow a general formula for the nutritionally oriented population. This patient must regard the nutritional plan as part of total patient care. This cyclical pattern is one beginning from the time of admission through discharge and subsequent follow-up (40). Techniques used by dietitians could include tape recorded instructions for patients with diabetes and heart disease. A thirty minute tape cassette recording services the patient and permits the dietitian to do other work (41). In this sense, the dietitian is a "translator" in the fullest sense of the word (42).

To assure good patient care, Fowler (43) explains that hospital dietary departments must produce high-quality foods, meet the nutritional requirements of the patient and maintain cost within budgetary allowances. Many kinds of diets must be provided with a variety of foods for each service period. Foods must be available 24 hours a day.

Food likes and dislikes of the patient compound the problem. Robinson (26) in discussing meal patterns of patients with metabolic or nervous disorders stresses that although the patient may have likes and dislikes, and restrictions of diet as part of their history, adequacy of food choices may be controlled by counseling with the dietitian. Ohlson (44) in a discussion of counseling stated that the discipline of the science of nutrition is the educational background of the dietitian. With this knowledge the dietitian knows food composition; understands the

combination of food for meals; cookery; availability and the economic, social, ethnic, and physical factors influencing food consumption as well as the role of food in the maintenance of health. Practical application of this knowledge by the dietitian will effect adequate food choices.

To improve accuracy in diet systems, Schaum and Sharp (45) have developed a computerized menu print and diet order system. Information is fed to two computer master files eliminating the handwritten diet orders. It further provides the means for printing individual patient menus, also eliminating improper selection. Food service employees are relieved of tedious work which the computers replace with accuracy and legibility.

Malnutrition and Obesity

Read (46) defines malnutrition as, "The state of impaired functional ability or development caused by an inadequate intake of essential nutrients or calories to provide for long term needs."

Lowenberg et al. (3) label malnutrition as the precursor of a multitude of diseases. They consider as major contributors to malnutrition diets composed primarily of five calorie-yielding staples in developing countries: rice, wheat, maize, cassava or millet. The greatest nutritional problem of the world is undernutrition where people simply do not have enough to eat.

Malnutrition can be caused by a deficiency of any one of the six basic nutrients: protein, fat, carbohydrates, vitamins, minerals, or water. The vegetable and fruit group of the basic four food groups offers many nutrients, among them are vitamins A and C.

Although vitamin C is synthesized in the animal body of many species, man must be provided with the vitamin from outside sources (5). There may be sharp differences in individual adult requirements though sufficient quantities may be stored to carry through several weeks of deprivation.

Vitamin A is best supplied to man through green and yellow vegetables, yellow fruits, liver, eggs, milk, butter and fish liver oils. It is essential to growth, to vision and to the integrity of epithelial tissues. The best understood function is the part it plays in vision through its effect on night blindness (5).

Wilson et al. (47) state that as a group, vegetables (and fruits) are contributors of nearly all of vitamin C and more than one-half of vitamin A. Cooked broccoli, 1/2 cup measure, will yield vitamin A value of 1940 IU and vitamin C value of 70 mg. Cooked carrots, 1/2 cup measure, will yield vitamin A value of 7610 IU and vitamin C value of 5 mg (48).

Lehninger (49) describes the result of vitamin A deficiency as impaired growth and the condition known as xerophthalmia, a disturbance of the epithelial tissues.

Other characteristics of vegetables are their value as carriers of mineral elements. Though not fulfilling protein

and energy needs of the body, increased use and variety of vegetables improves the quality of the diet, while decreased use and no variety encourages nutritional deficiency and disease (2).

Turk et al. (50) attempted to discover non-conventional sources of protein through the use of vegetable products. They conducted tests to equate the biologic value of textured protein to that of customary protein for human nutrition. In experiments with spun-soy protein containing egg albumin, conclusions were that spun fibre foods of this type represent a high quality of protein for teen agers and adults.

The American Dietetic Association contends that most Americans obtain sufficient protein from foods, and many consume protein in excess of that required (37).

Protein requirements are 65 grams per day for men and 55 grams per day for women as interpreted from the recommended dietary allowances (51).

Obesity is a disease of plenty. The fact remains that when input is greater than output the result is storage (1). It is one health problem seemingly indigenous to the U.S. citizen and the pets. One of the behavioral traits contributing to this disfunction may be devotion to the three meals per day regimen. One of the suggestions by Leveille and Romsos (52) is ad libitum feedings to counteract obesity. However, Chaney and Ross (8) noted that the life expectancy of rats on ad libitum diets was 50% less than normal.

Frequently eating the heaviest meal just before retiring, is a hazardous undertaking for the obese. Noonday is the more sensible approach for healthier eating patterns. Recently, nutritionists have proposed a five-meal-a-day plan. With this plan there would be no overloading of the stomach. Nutrients would be released in smaller, steadier supply and it would do away with that "let-down" tired feeling just before lunch (39).

Dr. Durnin et al. (53) hypothesizes that the energy requirements of man and his balance of intake and expenditure are not known. He points up the fact that in some countries people are able to be healthy and active on sub-standard energy intakes while elsewhere people given large quantities of additional food do not gain weight. Finally the difficulty of the obese to reduce body weight in spite of drastic reductions in food intake highlights the extent of our ignorance.

Hertzler and Anderson (54) note that in the U.S.D.A.'s essentials of an adequate diet, four servings of fruits or vegetables are recommended but no suggestions are made as to choice. Guthrie (1) mentions the necessity of consuming one fruit or vegetable high in ascorbic acid every day and a serving of dark green, yellow, or orange vegetable as a source of vitamin A every other day.

Since education has not been successful in changing the population over to good nutrition, perhaps the problem should be viewed as a sociological problem. It could be considered an overall family development using a single parameter to

measure nutritional status as well as family development. Armstrong (55) completed such a study in Mississippi. Effective scales were developed to measure the capacity of the family to process information. Other scales provided the nutritionist and the sociologist direction for teaching, selecting teachers and evaluating change in food practices.

Rickard and Farnum conducted innovative learning experiences for children (ages 7 to 12) in their food for fun and thought projects. Elementary school age children, patients in the hospital, and their families participated in educational cookery in the hospital. Objectives were influencing and changing behavior which affects nutrition. Emphasis on desirable food attitudes to understanding "acceptable" diet was accomplished (56).

INTERACTIONAL FACTORS AFFECTING CHOICE

Food Service Management

The dietitian of a hospital is an executive faced with the same responsibilities as executives in other businesses. Drucker (57) defines the role of the executive as one who is expected "to get the right things done." Katz (58) lists three basic skills of a successful manager as technical, human, and conceptual.

The dietitian must manage work and workers. This means organization of the work to make it suitable for human beings and organization of people to make them productive and effective (59). Another factor influencing every decision is time. Though not a function of management it could conceivably be called a dimension of effectiveness. Immediate gains must not be considered if they are to be achieved at the cost of future consequences.

As workers reach their proficiency it becomes evident that every knowledge eventually becomes obsolete. Knowledge is a perishable commodity which must be reaffirmed, relearned, repracticed all the time. To maintain excellence is to constantly work at regaining it. Look at things that have been done well then look at things that have been done poorly and finally--ask the patient. No matter how confused their answer they will bring out a pattern that shows where to look (60). This technique affords a good program evaluation for the dietitian.

In the exercise of managerial responsibility, the dietitian must consider varying theories on human nature or human behavior. McGregor (61) compares the traditional view of direction and control he calls theory "X" to his theory of integration of individual and organizational goals called "Y". He explains that the traditional philosophy deprives people of the opportunity to satisfy at work the needs important to them. As to be expected they behave with indolence, passivity, unwillingness to accept responsibility, resistance to change, willingness to follow the demagogue and make unreasonable demands for economic benefit.

In discussing his theory "Y" the integration of the individual and organizational goals, McGregor (61) states that the potentialities of the average human being are far above that which we realize today. In his theory"Y" McGregor states, "that the people will exercise self-direction and self control in the achievement of organizational objectives to the degree that they are committed to those objectives." With advances in the scientific world occurring as they are, innovation is becoming a daily word. McGregor states his theory "Y" is an invitation to innovation.

In applying McGregor's theory to the science of nutrition, the dietitian may be said to be head of a socio-technical system. Activities are largely of an intellectual, communicative, problem solving nature. Dietitians require the use of power in influencing human behavior rather than manipulating physical objects. The team member relationships

must contain features such as: understanding, mutual support, management of human differences, selective use of the team, appropriate member skills, and leadership. Obviously an effective team just does not happen. It is a complex and delicate system, the building and maintenance of which requires much time and attention (62).

Likert (63) in discussing supervisory actions in team theories discusses the probability of different subordinates reacting differently to any particular supervisory act. He states that, "the subordinate's reaction to the supervisor's behavior depends upon relationship between the supervisory act as perceived by the subordinate and the expectations, values, and interpersonal skills of the subordinate." Likert continues in kind the "X" and "Y" theories of McGregor labeling one authoritative and the other participative.

In a later work Likert (64) modifies his theories into four systems of management namely: System 1, Exploitive Authoritative; System 2, Benevolent Authoritative; System 3, Consultative; System 4, Participative Group. Each system is an entity within itself; all processes comparable to each other but not compatible with the other systems. An organization wishing to apply the results of research dealing with leadership, management, and organizational performance finds the application must involve a total systems modification. Change should start with the most influential causal variables, the dimensions which deal with the quality and productive capacity of the human organization. Following this with a systematic plan modifying remaining operating

procedures of the present management system will result in the well-integrated system recommended in the research (64).

The discussion of systems operation in management initiates a discussion of statistics. Runyon and Haber (65) state there are two functions of the statistical method; descriptive statistical techniques and inferential or inductive statistical techniques. Descriptive statistics presents information in a convenient, usable, and understandable form. Inferential statistics is concerned with making inferences about populations which are based upon samples taken from the population. Hayslett (66) speaks of descriptive statistics as dealing with pictorial and numerical description of data whereas statistical inference is the use of samples to reach conclusions about populations from which those samples have been drawn.

One form of descriptive statistics could be use of the Manpower Planning Formula described by Muni (67). ESMR = PSH/APH where ESMR is Equivalent Standard Manpower Requirements; PSH is Productive Standards hours; and APH is Available Productive Hours.

Participation is the democratic principle underlying our society. When management leadership recognizes the effectiveness of this principle of freedom, it makes it possible for the people to apply their whole intelligence to the task (68).

Montag (69) recalls the "two-way" talk sessions of the 1960's. They pinpointed the trouble spots in coordinating the activities of the food service management system. Permitting

employees to participate in planning and coordinating activities proved rewarding to parties at all levels. Flippo (70) notes that a significant part of motivational influences is expectancy. Haimann and Scott (71) list the following factors as influencing employees' expectations: organizational climate, leadership style, perception of legitimate authority, and use of positive incentives.

The successful manager takes an interest in his food service employees. Hepner (72) lists intelligent acceptance of mistakes as a positive attitude. A department without mistakes is either dead or lacks imagination and innovation.

Food Purchasing Storage and Handling

Food purchasing, a management function of the food service administrator, must be coordinated with the needs of dietary. West et al. (73) discusses informal or "open-market" buying and formal or "competitive bid" buying as two methods of policy. In either method price in relation to quality, delivery in relation to amount of order, and other services will determine the placement of the order.

Storage of food at time of delivery is an immediate consideration. West continues in warning that food deliveries unguarded or food deliveries exposed to the elements or extremes of temperature even for short periods of time is to be avoided. If this is not done loss from pilferage and waste from deterioration or infestation will be the consequences.

Vegetables are important foods from the standpoint of economics and nutrition. Kotschevar (74) states that purchase and storage are made difficult because of: dynamic market changes; variations in market practices; highly perishable quality of the product. In order to insure product quality, buyers must specify that the grade indicated in the order should be the condition of the item upon delivery.

Food service employees responsible for the preparation, cooking and serving of food are faced with many problems. Head (75) in a study obtained in active institutional kitchens discovered variations of nutrient levels in spite of standardization of brands, suppliers and supervision. Handling was the unpredictable variable. It is necessary that employees be helped by controlling temperature and air circulation in storage areas; by control over pre-peeling vegetables; by control over reheating items cooked hours before needed; by control over equipment made of catalytic materials. Greater standardization of recipes and procedures is needed to achieve standard nutrient levels.

Vegetable Preparation and Procedures

Vegetables may be purchased fresh, canned or frozen. Fresh vegetables may or may not have the greatest nutritive value by the time they are served. Today's scientific methods preserve the nutrients in the canned or frozen vegetables much better than the slow cooking methods used by homemakers.

Canned and frozen vegetables are safe and wholesome due to today's scientific methods used in commercially preserving foods. Harvesting at the appropriate time for canning and quick freezing insures a minimal loss of the nutrients available. Fresh vegetables poorly stored in the market or improperly handled from farmer to consumer will have less of the nutrients available at cooking time (76).

Representative vegetables of the same group have characteristics that dictate similar preparation methods. Morgan (77) of Florida International University classifies vegetables according to the part of the plant used as food and not according to their botanical classification. Beets, carrots and radishes are roots, potatoes are tubers, broccoli, cauliflower are flowers, et cetera. In food preparation work, Kotschevar (78) cautions, "poor preparation techniques can result in messy, poorly shaped vegetables..." Morgan (77) established digestibility as the major consideration in preparing vegetables with attempts at preserving the maximum amount of available nutrients in the vegetable.

Morgan (77) differentiates procedure in the preparation of processed and fresh vegetables. Frozen vegetables are blanched before freezing and need only completion of the cooking process before serving. Freeze dried or dried vegetables may or may not be blanched. Canned vegetables are completely cooked and only need heating.

Morgan continues in detailed description of preparation and cooking of fresh vegetables, discussing the need to

preserve valuable nutrients and reduce waste of usable portions; the need of washing vegetables with large amounts of water while brushing with a stiff brush to remove dirt, insect sprays, grit and the like. Use of a saline soak in a deep vegetable sink may be required to remove insects in leafy vegetables. Basic methods of cooking are baking, steaming, boiling, sauteing, deep fat frying and broiling. Cooking methods selected should be the one most suited to the particular vegetable to produce minimum loss of color, taste, nutrients and time.

Karl (79) in discussing menu items for commercial and institutional operations stresses importance of preparation, selectivity and brevity.

Kotschevar (78) highlights proper equipment for vegetable cookery. He states that vegetables must be given careful preparation and cooking. If preparation technique is poor it will result in poorly shaped, messy vegetables that lack appearance and do not cook well. Overcooking, stirring, excessive manipulation, or hard boiling can produce very unattractive products. Cooking by other than boiling reduces movement and retains form. The best method is the one giving the most flavorful attractive product.

However efficient the food service equipment for preparation and cooking may be the findings of Shea (80) indicate that better equipment to retain the heat of hot vegetables to be transported and served is needed. In tests conducted

using several delivery systems the most efficient system posted an average elapsed time before diced carrots reached their minimum acceptable temperature, of 11.3 minutes. Hardly enough time for hospital dietary to transport hot vegetables from kitchen to patient.

NATIONAL POLICIES FOR NUTRITION

Hegsted (81) in discussing nutrition policy defines the criteria as evidence of need and the means to evaluate its success. He mentions that recent nutrition surveys (1972) brought out the fact that severity and nature of problems vary from one area to another. These problems are related to income, ethnic background, local programs, etc., that a major question is local organizational or centrally directed national programs; that the problem with available survey data is its relationship to relatively few nutrients. Major questions to be faced before national policy can be formulated are: 1) insufficient data; 2) inadequate methods for evaluating nutritional status; 3) insufficient data on the nutritive content of foods being eaten.

Senti (82) cites the nutrition awareness of the United States Department of Agriculture. Programs are in areas of research, education, and action. Genetic improvement of plants and animals is a result of studies in food science. Changed behavior to achieve better diets of families at the poverty level is one objective of education. Food stamp, food distribution, and child feeding programs helping upgrade the nutritional quality of diets is part of the action program.

A position paper by the American Dietetic Association (83) states that nutrition education should be available to all individuals and families. Its philosophy focuses on nutritional health rather than crisis intervention, through a

continuing process of education. Planned behavioral changes are scheduled through five stages: awareness, development, experimentation, reinforcement and adoption of change. The role of the dietitian is primary in this pattern for education. In the role of translation of the science of nutrition and in the role of nutrition educator the dietitian will provide leadership, interpretation; simplicity of terminology; prompt application of new discoveries; use human motivation to bring about change in food practices.

Mayer (84) brings out the fact that a diet missing in certain components such as vitamins can cause grave diseases. Commentary in the A.D.A. Journal (85) provides information that indicates downward consumption of potatoes may be reversing itself through innovation. Through the use of dehydrated and frozen potato products, plus chips, consumption from a low of 107 pounds per person in 1960 climbed by 1970 to 119 pounds per person and is expected to reach 127 pounds per person by 1980. The innovation of processed products has effected the increase. In 1970 80 pounds were fresh and 27 pounds were processed. In 1980 it is expected that 79 pounds will be processed while 48 pounds will be fresh.

Perhaps the importance of a national policy can best be described by the senatorial committee invested with the responsibility. In a working paper (86) of the Senate committee discussion on an international level states as follows: "We can hardly claim that we have assessed or

inventoried the material or scientific knowledge available for making a concerted, long-range international attack on the most basic of human problems, the lack of adequate nutrition."

A later report of the Senate committee (87) on the international food plan reaches the conclusion that the industrialized world must increase agricultural assistance to the developing world. Health programs, education and technical training programs, job programs, population control programs will not work unless people have enough to eat. Agriculture must be at the center of developing policies for both the industrialized and the non-industrialized. The United States should do all possible to make an enlarged monetary commitment and encourage the widest and most equitable participation of nations in the financing of agricultural development.

DIETARY SURVEYS

Surveys are a form of communication and to that extent their function may bedivided into two broad categories: 1) that which seeks to inform; 2) that which seeks to motivate or persuade (88).

Brown (89) defines research as problem solving. Preliminary analysis is characterized as extensive review of all information which may have a bearing on the problem. Existing knowledge, thoroughly examined from several points of view, will help define the problem.

Surveys are one of the tools of marketing. Dietary markets their product to the patient. Green's (90) description of marketing surveys is "the systematic and objective search for and analysis of information relevant to the identification and solution of any problem." McElhiney (91) accurately defines the concept as "any and every effort which helps to bring buyer and seller together for their mutual benefit." Hanan (92) terms life styled marketing a systems approach to conceiving a market. Three major attributes of each market group are: 1) psychographics expressed by major needs, personality characteristics, value systems; 2) product usage and product evaluation; 3) demographics, such as age, sex, etc.

Holloway (93) describes the objectives of a systems approach as a complete offering. However we must study what the patient wants rather than what we are trying to give.

The patient buys nutrition not food in a hospital situation and motivation should be provided for consumption of nutritionally balanced meals.

It is easy to take for granted the underlying values and day to day behavior patterns of a group. Bliss (94) warns that there are those with a different perspective who may deviate from the essence of the culture.

An elementary sampling unit is a single entity of the population from which the sample is selected, for which characteristics are to be measured from the sample. Crisp (95) understands this unit to be an individual person, an individual household, an individual family, or any other type of element.

In evaluating individual food intake, Guthrie (1) cites twenty-four hour recall, dietary history, food intake records, and weighed food records as the foremost methods. Wilson (47) says that the most accurate of all four procedures is weighing the food, but it is more time consuming, tedious and expensive than any of the others.

In humanizing those who participate in clinical surveys, the national advisory eye council (96) approved a terminology change in the designation of participants from "subjects" to "patients, volunteers, participants, or human beings."

MEASUREMENTS AND GUIDES

General

A traditional data gathering method is the nutritional survey - a cross-sectional examination of a population group at a specific point in time. Nichman (97) states that nutritional surveys conducted on the same population at two or more points in time utilizing similar sampling methods, can supply useful information on changes in the two groups over time. The health and nutrition examination survey (Hanes) of the National Center for Health Statistics describes this activity as "monitoring" or "surveillance."

Terminology

Robinson (98) places the reason for a uniform system of terminology on the establishment of a basis of communication between dietitians, physicians, nurses, and other professional or technical personnel involved directly or indirectly with any aspect of nutritional care.

Todhunter (99) prepared a guide to nutrition terminology for those responsible for indexing, storage, and retrieval of information in the broad field of nutrition.

With the field of nutrition adjusting itself to computer programming, Murach (100) presents introductory concepts of machine language. Cobol, Fortran, RPG and PL/1 are not too distant in the future of the nutritionist. Computer language will be as familiar as calorie or joule.

Nutrition Education

For those conducting surveys requiring household measures of commonly used foods, the USDA publishes Home and Garden Bulletin 72 Revised 1971 (48) as an aid. It is an often quoted publication as it lists values of fifteen nutrients for 615 products.

The Recommended Dietary Allowances, 8th Edition Revised 1974 (51) are the levels of intake of essential nutrients considered in the judgment of the Food and Nutrition Board on the basis of available scientific knowledge, to be adequate to meet the known nutritional needs of practically all healthy persons. RDA should not be confused with United States Recommended Daily Allowances (USRDA) a set of values derived from RDA by the Food and Drug Administration as standards for nutritional labeling.

The Food Buying Guide, for Type A School Lunches (101) contains 36 pages of fruits and vegetables out of a total of 83 pages of foods. Each item is shown with columns for purchase unit, serving per unit, serving size or portion, purchase units for 100 servings and additional yield information.

At the 1970 meeting of the American Institute of Nutrition, recommendations were made for replacement of the kilocalorie by the kilojoule (kj) in principal nutritional journals (47). Mechtly (102) in his tables has one kilocalorie equivalent to 4184 joules.

Sherman (4) mentions that the Atwater Bomb Calorimeter was devised to determine the fuel value of foods. A weighed sample of food was placed in a heavy steel container called a "bomb". The bomb was charged with oxygen, the sample ignited and the heat dissipated into a known volume of water surrounding the bomb. By noting the change in the water temperature, energy value of the food could be calculated by applying the following definition of a kilocalorie: a kilocalorie (kcal) is the amount of heat required to raise the temperature of 1 kg water 1°C (from 15 degrees to 16 degrees) Robinson (26).

PROCEDURE

In setting the direction the investigation should take regarding recommendations for a change in menu presentation, consideration was given to the authenticity and adequacy of the data to be collected. Due to the lack of secondary source material, obvious conclusions were that the data be of primary sources for accuracy and sufficiency to serve as a basis for drawing valid conclusions. Guthrie (1) cited weighted food records as the foremost method for evaluating individual food intake and was the technique used by the researcher. This opinion was reinforced by Wilson (47) who said that weighing the food was the most accurate procedure, although the most time consuming, tedious, and expensive to implement.

To establish primary sources the hospital situation provided opportunity for procedure and the patient meal the instrument for collecting the data. To evaluate individual food intake, weighing the food was the procedure. Upon recommendation of the thesis advisors two methods for establishing authenticity of the procedure were: first, a written record of the weighed food and second, a visual record of the patient meal. This method of establishing authenticity permitted exacting procedure along with observation by the researcher to personally ascertain and interpret appropriately primary data.

Since the very essence of scientific experimentation is proper classification, consultation with the thesis advisors established that two groups of patient meals, one a control group of the present menu presentation system, and the other an experimental group of the changed menu presentation system totaling 300 patient meals would represent samples of the population sufficient to warrant validity.

In order to achieve a sampling of those exerting the greatest influence on food choices, research by Williams (23) Cosper and Wakefield (22) and Lowenberg (22) was reviewed. They supported the role the mother plays as most important since, in the final analysis it is she who places the food on the table and sees that it is properly utilized. In view of this the sampling was directed to females. Further, the age span was from 20 to 50 years and again divided into two sub-groups of 20 to 34 years and 35 to 50 years, thus dividing the early years of life 20 to 34, when the influence of the female is geared to the children, from the later years of life 35 to 50, when the influence of the female is geared to adults. Therefore, the 300 patient meals were to be divided equally on the basis of 150 patient meals served to the control group and 150 patient meals served to the experimental group each group sub-divided again into two sub-groups of 75, ages 20 to 34, and 35 to 50 resulting in a total of four sub-groups each with 75 patient meals.

In order to satisfy sufficiency of the instrument, the patient meal, the diet chosen for the experiment was the

diet in which the greatest variety of vegetables were offered the patient, and that is the general diet.

To retrieve the information necessary to determine eligibility for the sampling, the hospital computer sheets (Appendix A) were processed by the researcher through a daily data sequential regimen. This involved a search for females 20 to 50 years of age on the general diet. This sampling was considered a judgment sampling of the purposive sort where the controls for the patient whose meal was chosen for sampling were: the hospital population, food served, age, sex, number of children, and marital status. It must be noted that the number of children the patient had was not programmed to appear on the computer sheets but was retrieved elsewhere.

In the course of processing by the researcher, counts of total patients, total patients on general diets, total patients female 20 to 50 on general diet, total patients female 20 to 34, and 35 to 50 on general diet were taken for later comparative totals (Appendix B).

Adequacy of the area for sampling was determined through comparison of the two meals in which vegetables were served, the noon meal and the evening meal. The meal having the greatest number of vegetables served would be the area chosen for sampling.

Menus at the hospital were cycled to repeat after eight days, therefore, one complete sequence of menus would cover an eight day period.

Upon recommendation of the thesis advisors, a comparison of the count of vegetables served throughout a three 8-day cycle of menus of patients on the general diet would establish whether the noon meal or the evening meal served the greatest number of vegetables.

On the basis of variety alone, the evening meal gave a broader base for the research. In the noon meal the same five vegetables were served every day throughout the eight day cycle. In the evening meal twenty-four varieties of vegetables were served throughout the eight day cycle arranged so that there was a choice from four different vegetables each day.

Eligibility of the samples for the comparison had to be equivalent to the standard set for the research. It was necessary for the researcher to establish a count of the menus marked for vegetables by all the patients on the general diet. A further breakdown of this count into the sub-groups of female 20 to 34, and 35 to 50, who had marked their menus for vegetables was the count used for the comparison.

At the conclusion of the count by the researcher for the three 8-day cycles, a comparison of the total vegetable servings proved that the evening meal registered a 20% increase over the noon meal in vegetables served. Appendix C gives the results of these three cycles of menu repetition over twenty-four days comparing the total number of servings each 8 day cycle for the noon and evening meals by group, sub-group, daily census, and general diet.

The evening meal was selected as the area for sampling. The general menu as used at the hospital was selected for the control menu. It permitted the patients to select their own choice of food by pencil circling a choice of entree, hot vegetable, salad, dessert and beverage. This menu was called the free choice hot vegetable menu in the thesis but had no title in its printed form (Appendix D).

The experimental menu was specially printed for the research. It permitted the patient to select their own choice of food by pencil circling a plate selection which included the entree. However, hot vegetables were listed with the entree so that the patient automatically received two hot vegetables with the entree regardless of like or dislike. The patient also selected their salad, dessert and beverage by circling their choice on the menu. This menu used as the experimental menu was called the "no choice hot vegetable menu" in the thesis but was titled "plate selection menu" in its printed form (Appendix E).

The system employed for delivery and pickup of patient menus was under the direction and supervision of the researcher. Menus were delivered to the patient on the breakfast tray. The tray girls told the patient to mark the menu for the next day's food choices and leave the menus by their bedside. The patient was to remove the menu from the breakfast tray, mark the menu and leave it by the bedside as directed. The diet aides picked up the marked menus and returned them to dietary.

The patient's diet was not on the computer sheets. Careful monitoring of the standard hospital procedure by the researcher was mandatory to insure accuracy. It provided for the diet to be transcribed by the ward clerk from the patient's medical chart on to a card designated for dietary (Appendix F). This card was then picked up by dietary and filed in a cardex system under the room number of the patient. The diet was then transcribed on to the computer sheets by the diet aides.

With the receipt of the computer sheets from the diet aides on which were transcribed all the diets for all the patients in the hospital, the daily data sequential regimen observed by the researcher began. The following numerical totals were first established: total daily census, total patients on general diet, total female patients on general diet 20 to 50 years of age, total females 20 to 34 years of age and 35 to 50 years of age on general diet. The room numbers and names of the females age 20 to 50 on the general diet were noted so that their menus could be retrieved.

Next, the menus for the evening meal of each of the females on the general diet ages 20 to 50 were retrieved. The researcher made preliminary selection of patients to participate in the sampling. Menus marked were scrutinized to see if they had selected a vegetable. If they had selected a vegetable, the face of the menu was marked with a star (Appendix G). A copy of the menu was made and that menu was stapled to the place mat form (Appendix H) and patient information was transferred on to the place mat form.

At 3:30 p.m., diet changes were picked up by the diet aid and returned to the diet office. If the diet changes indicated that any of those patients selected for the research were discharged, or had their diets changed, they were eliminated from the study. At this point, in keeping with the daily data sequential regimen as set by the researcher, those patients selected for the research were entered into a log of patient meal samples (Appendix I) and received an alpha-numeric number. The numbers were sequential. A logged number would be voided if dietary was not notified that a patient had been discharged or that the diet had been changed. Either of these two factors, as previously stated, would eliminate the patient from the research. The alpha-numeric tray identification log code for patient meal samples was designed as follows:

Alpha-numeric Tray Identification
Log Code for Patient Meal Samples

C	Control Group
X	Experimental Group
Y	Female Patients 20 to 34 years
Z	Female Patients 35 to 50 years
000	Patient's digits

EXAMPLE:

CY 123	Identifies Control Group 20 to 34 years of age Patient Meal Sample number 123
CZ124	Identifies Control Group 35 to 50 years of age Patient Meal Sample number 124
XY125	Identifies Experimental Group 20 to 34 years of age Patient Meal Sample number 125
XZ126	Identifies Experimental Group 35 to 60 years of age Patient Meal Sample number 126

Patient Meal Samples Designated for Photographic Identification.

The following two designations were added to the code when color slides were taken of the sample trays. The designation was placed last in the sequence.

A	Prepared Patient Meal Sample before delivery to patient
B	Prepared Patient Meal Sample returned from patient

EXAMPLE:

CY102A	CY102 Patient Meal before delivery to patient designated for photography, code changed to CY102A
CY102B	CY102A Patient Meal after delivery to patient returned to photography area and CY102A code changed to CY102B then photographed.

The hospital procedure for servicing the menu selections on the serving line was geared to filling the orders of patient menus by floor and section. It was imperative that the menus of patients selected for the sampling be

returned for replacement in their proper sequence by floor and section. The original menu was returned to the diet aides for this purpose. The star on the face of the menu was a caution to all food service workers and tray girls to be doubly careful of the exacting procedures required of them. The menus were kept in their proper order, filled on the serving line and the tray girls delivered all trays to the patients.

Delivery of all patient meals took approximately one to one and one-half hours. Those patients scheduled for sampling were given thirty minutes to consume their food. At that time the patient was personally visited by the researcher who removed the tray, placed it on a special cart used for the retrieval trays for the research. In order to allay the patient's fears, because of the starred menu, or the special attention by the researcher, it was explained that their food intake was to be reported to their physician. In addition, a short conversation would bring about a discussion of children and required information would be volunteered about the number of children. The original menu was also retrieved at this time. The trays were returned to the special reserved area of the kitchen. It was in this area that the weighing of the vegetables on a balance scale, and the observed residual percentage of food was done. The ounces of vegetables left on the plate was the residual which was subtracted from the ounces of vegetables served to establish the ounces of vegetables consumed. Only the

vegetables were weighed in ounces on the balance scale for the research. To establish accurately the amount consumed of foods such as entree, soup or juice, dessert, beverage, bread, rolls, margarine, etc., the remaining bulk or liquid was estimated as a percentage of the standard portion established by dietary control. This percentage subtracted from 100% established the amount consumed. As recommended by the thesis advisors from Florida International University, the ounces of the weighed food and the percentage of the observed residual food was registered on the form identified as the place mat form. This registration was for the satisfaction of the written documentation requirements of the procedure.

Photographic color slides were taken of one-third of the sample patient meals to satisfy the visual documentation requirements of the procedure. A Minolta SRT 102 camera fitted with 50 mm 1.4 Rokkor X lens using Kodachrome 25 reversal film daylight ASA 25, and the 892 Honeywell auto-strobonar Electronic Flash with Strobe-eye remote sensor bounced off a silver lined reflector umbrella was used. The tray was placed on a specially designed molded female jig fastened to the floor and the camera, mounted on a Welt PT-3 Professional Tripod was poised at an angle 5 degrees from the perpendicular to the tray. The distance from the tray to the film was constant at 3'3" with each slide. The positioning of the strobe light and strobe-eye also was constant at 5'6" from the tray and at an angle of 40 degrees from the perpendicular to the tray. The positioning of the strobe

light in relation to the camera was a quarter circle to the left of the camera.

To obtain the two hundred photographic slides necessary to visually document the research, photography was scheduled on the basis of one session per evening for thirty-two days for coverage of the control and experimental cycles. It was imperative that exact methods and standards for setting up the equipment be maintained to preserve consistency. This consistency was practiced on all photographic slides taken of food trays "before" and "after" the sample had been taken to the patient.

The duration of the photographic sessions presented the problem of possible infringement on the normal routine. In order to keep from interfering with tray delivery on the nights the samples were photographed, the starred menus were placed first in the serving line each with their particular section, to be filled first in order to give time for the sample tray to be photographed and returned to the food cart for regular delivery.

The registering and photographing of the samples completed documentation of all primary sources.

In the four weeks period prior to implementing the sampling, one eight day cycle was selected as the norm by the researcher. Weighing and checking the portion control of food on the menu was accomplished. Records of the weights or volumes of all food were noted. The next two eight-day cycles were devoted to checking and rechecking the accuracy of these

weights and volumes of foods as portioned by the cooks and food service employees in food preparation. Their accuracy was superior. The measures used were the standards for measurement as designated by Baptist Hospital Food Service Department (Appendix J).

In addition to certifying the standards for weights and volumes during this four week period, the researcher had taken specific notice of the standards of bulk and volume for the various portions. It was imperative that proficiency in estimating this bulk and volume of portions of foods other than vegetables be achieved, since percentage of bulk or volume would be the method of measuring all foods other than vegetables. The accuracy of the cooks in portioning the food helped the researcher gain the proficiency needed to estimate bulk and volume of the portioned foods correctly.

Before any activity on the research was begun at Baptist Hospital of Miami, a trial run of one eight-day cycle of control menus and one eight-day cycle of experimental menus was accomplished. All procedures were tested and impediments were removed. The above was a record of procedures as implemented in their final form.

RESULTS OF THE DATA

Description of Subjects

A total of 300 patient meals was established as the sample for the research. The sample was to be selected from the evening meal. During the 16 days of the free choice menu presentation period of the research, 150 patient meals used as case study samples for the control group were selected from a total census of 4445 patients.

During the 16 days of the no choice menu presentation period of the research, 150 patient meals used as case study samples for the experimental group were selected from a total census of 4323 patients.

Selection of the patient whose meal was to be used for the control or experimental group sample for the research was on the basis of diet, age and sex. The sex established was female. The age groups were 20 to 34 and 35 to 50. The diet established was the general diet. For each group sample, 75 patient meals of females ages 20 to 34, and 75 patient meals of females ages 35 to 50 were selected at random to equal 150 patient meals for the control group. The same procedure was followed for the experimental group to equal 150 patient meals. The total equalled 300 patient meals as established for the sample.

In each of the 16 day periods of the research where first the free choice and second the no choice menu was used, the general diet was 44% of the total daily census.

Patient meals selected for the sample were from general diets proportionately equal to the total daily census. Comparative percentages for female ages 20 to 34 and female ages 35 to 50 showed additional similarities. The comparison of patient classification for the free choice menu and the no choice menu of the total general diet, from which patient selection was made for the sample, is shown progressively in Tables 1, 2, and 3.

Children of Groups

The number of children and marital status were noted by Williams (23) as influencing factors in the relationship of food practices to vegetable consumption. The number of children and marital status of the patient used in the research is shown in Tables 4 and 5. A comparison of the number of children in the control and experimental groups yields minimal variations of 5% in the 20 to 34 age group and 15% in the 35 to 50 age group.

All General Diet Menus
Rank of Vegetable Selection

To establish rank of vegetable selection for additional comparisons, data was gathered during the research period and compiled in Table 6.

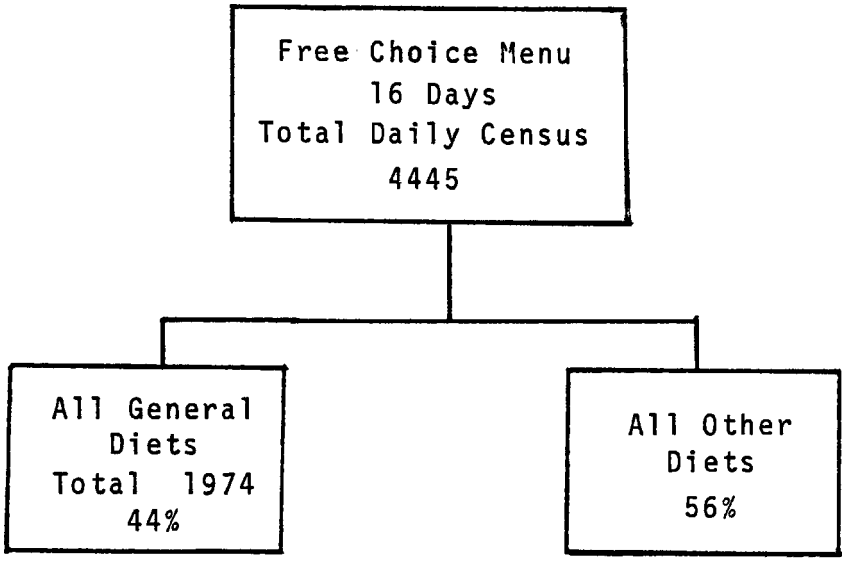
The researcher used two criteria for comparing the menu presentation system. They were selection and consumption of the vegetables. The total number of orders for each of the vegetables on the general diet was recorded every day of the 16 day periods. This record was kept for all patient meals

COMPARISON OF PATIENT CLASSIFICATION

				GENERAL DIET			
	Total Daily Census	Total All General Diets	% of Total Daily Census	Female 20 - 34	% of Total of All General Diets	Female 35 - 50	% of Total of All General Diets
Free Choice Menu 16 Day	4445	1974	44%	359	18.1%	268	13.5%
No Choice Menu 16 Day	4323	1894	44%	417	22.0%	274	14.4%

Table 1

CLASSIFICATION OF HOSPITAL DAILY CENSUS
BY DIET GROUPS



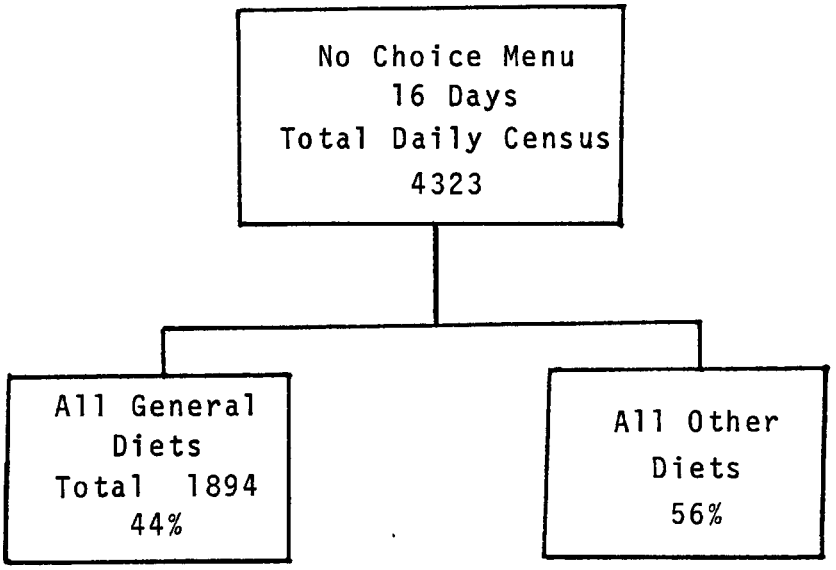


Table 2

CLASSIFICATION OF GENERAL DIET
IN THE SAMPLE

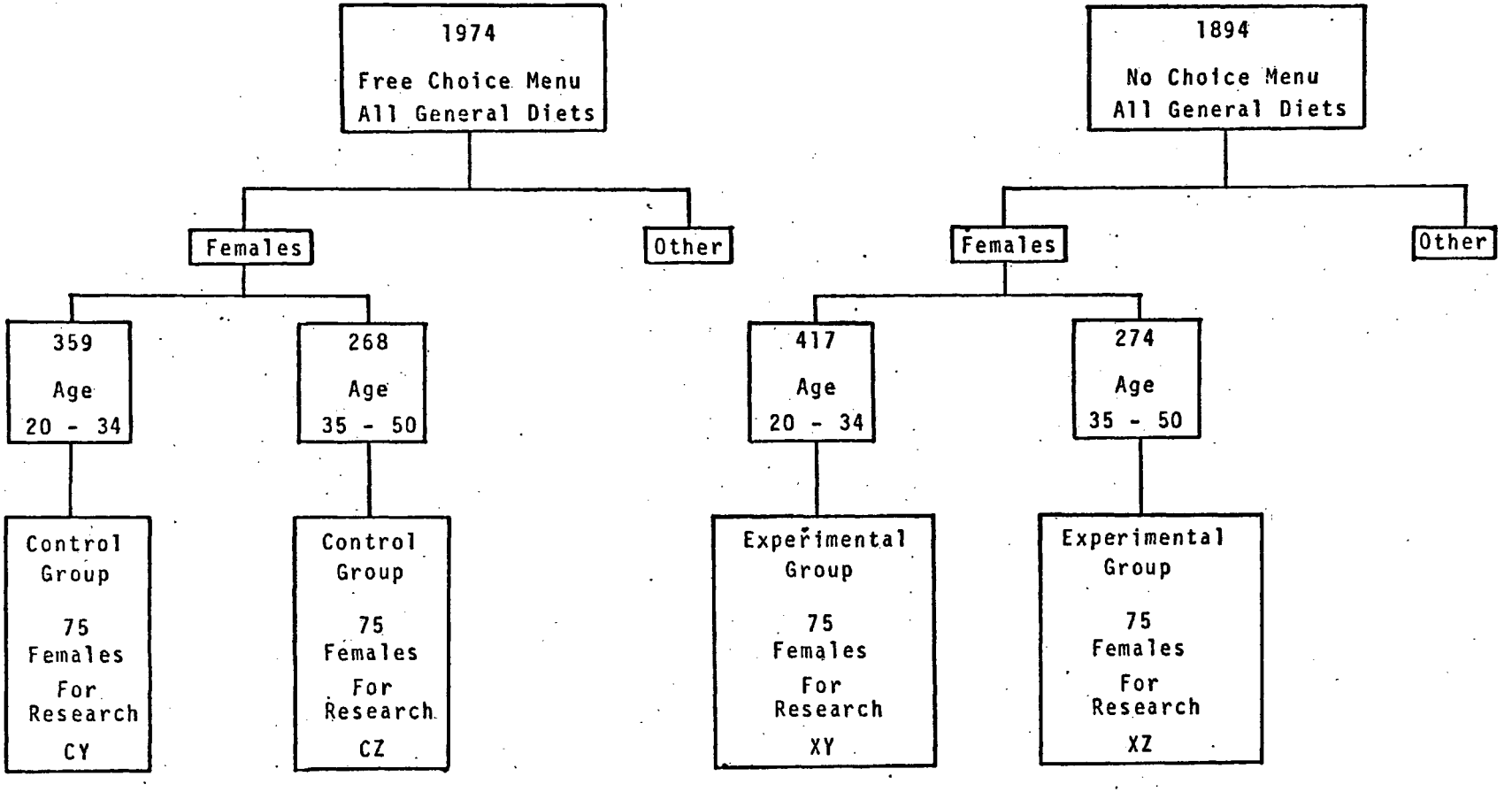


Table 3

CHILDREN OF CONTROL GROUPS

CY - 20 - 34

Status	Number of Patients	%	Number of Children	%
Married	67	89	131	97
Divorced	1	.1	4	3
Widowed	0	0	0	0
Single	7	10	0	0
Total	75	100%	135	100%

CZ - 35 - 50

Status	Number of Patients	%	Number of Children	%
Married	57	76	193	77
Divorced	12	16	43	17
Widowed	4	5	16	6
Single	2	3	0	0
Total	75	100%	252	100%

Table 4

CHILDREN OF EXPERIMENTAL GROUPS

XY - 20 - 34

Status	Number of Patients	%	Number of Children	%
Married	65	87	121	98
Divorced	2	3	2	2
Widowed	0	0	0	0
Single	8	10	0	0
Total	75	100%	123	100%

XZ - 35 - 50

Status	Number of Patients	%	Number of Children	%
Married	46	61	133	68
Divorced	21	28	50	26
Widowed	2	3	12	6
Single	6	8	0	0
Total	75	100%	195	100%

Table 5

ALL GENERAL DIET MENUS
Rank of Vegetable Selection
Free Choice Menu 16 Days (coded F)
No Choice Menu 16 Days (coded N)

VEGETABLES EVENING MEAL	All Patient Meals		All Female 20 - 34 Patient Meals		All Female 35 - 50 Patient Meals	
	F	N	F	N	F	N
Asparagus / Cheese Sauce	3	3	10	4	6	8
Broccoli / Almond Butter	4	5	4	3	4	7
Broccoli	7	14	5	11	5	9
Brussel Sprouts	15	8	15	8	18	6
Candied Sweet Potatoes	9	7	6	17	16	3
Cauliflower	12	17	7	22	12	4
Creamed Peas	18	6	18	5	21	13
Creole Egg Plant	17	23	19	23	8	23
French Style Green Beans	6	15	11	6	7	14
Harvard Beets	20	12	17	14	19	10
Mixed Vegetables	14	18	13	15	17	15
Peas and Onions	16	11	22	12	14	17
Potatoes: Au Gratin	13	9	20	7	9	11
Baked	2	2	2	2	2	2
Boiled	19	10	18	13	15	18
Buttered	8	19	12	19	3	22
Mashed	1	1	1	1	1	1
Oven Browned	11	21	9	22	13	19
Sliced Carrot Rings	21	22	16	18	23	20
Squash	10	20	14	20	10	21
Stewed Tomatoes	22	4	21	10	20	16
Wax Beans	23	13	23	16	22	5
Whole Kernel Corn	5	16	3	9	11	12

Table 6

on the free choice menu and for all patient meals on the no choice menu to establish selection. Also recorded were the total number of orders for each vegetable as selected on the menus of all females age 20 to 34, and all females age 35 to 50. The rank of the vegetable is charted in Table 6 comparing the free choice and no choice ranks of vegetables on the menus of each of the following patients: all patients on the general diet; all females ages 20 to 34 on the general diet; all females ages 35 to 50 on the general diet. The table offers comparison data in the rank of vegetable selection between the several age groups female, and the total general diet.

Mashed potatoes ranked as the #1 vegetable with all ages and sexes, and female 20 to 34 and 35 to 50 in both free choice and no choice menu presentation. Significance of this choice becomes of greater importance with the fact that the product is dehydrated in its raw form and reconstituted in preparation for serving.

Ranked as #2 vegetable in the identical manner as #1 is baked potato. This choice is a fresh vegetable when prepared for serving. As noted by Bogert (2) potatoes are a good source for vitamin C if consumed in sufficient quantity. They are economical and readily available.

Although sliced carrots ranked low in Table 6 the researcher believes an influential factor is their appearance as one of only five choices of vegetables on the daily luncheon free choice and no choice menu (Appendix K).

Wax beans ranked lowest in two categories and next to the lowest in the third in the free choice menu giving it the lowest rank in that category.

The question of vegetable influence on entree choice in the no choice menu could be the result of dislike or ignorance of terminology. For example, how common is the knowledge of what constitutes creole egg plant? Creole egg plant ranked lowest in all the no choice categories. Walker (16) in a discussion of methods used to improve nutritional choices cites prejudiced closed minds, preconceived notions and associative reminders contributing to negativism.

Control and Experimental Groups Rank of Vegetables in Selection and Consumption

In the research both the control group and the experimental group are ranked according to selectivity and according to percentage of consumption of these vegetables by each category. Table 7 includes the categories in the 20-34 group and Table 8 includes the categories of the 35-50 group. These tables are a summation of the detail block graphs of consumption for each vegetable as found in the Figures 1-23.

Vegetable Servings Consumed Code

Twenty-three vegetables were served on both the free choice Control menu and the no choice Experimental menu to groups of female age 20-34 and female age 35-50.

Rank of Vegetables in Selection and Consumption Females 20 - 34	Number of Servings And Rank		% Of Consumption And Rank		Number of Servings And Rank		% Of Consumption And Rank	
	CY				XY			
VEGETABLES EVENING MEAL	No.	Rank	%	Rank	No.	Rank	%	Rank
Asparagus / Cheese Sauce	4	8	58	15	3	15	45	19
Broccoli / Almond Butter	3	11	66	12	12	2	72	7
Broccoli	6	5	75	10	4	10	73	6
Brussel Sprouts	3	11	37	20	4	10	58	11
Candied Sweet Potatoes	4	8	77	9	5	8	48	18
Cauliflower	2	18	83	6	3	15	56	13
Creamed Peas	4	8	83	6	8	4	54	15
Creole Egg Plant	0	23	0	23	3	15	66	10
French Style Green Beans	7	3	93	5	12	2	83	3
Harvard Beets	3	11	68	11	6	7	21	22
Mixed Vegetables	5	6	43	18	5	8	52	17
Peas and Onions	3	11	94	4	4	10	58	11
Potatoes: Au Gratin	3	11	100	1	8	4	71	9
Baked	13	2	43	18	7	6	72	7
Boiled	7	3	55	16	4	10	54	15
Buttered	3	11	65	13	1	21	100	1
Mashed	14	1	65	13	44	1	74	5
Oven Browned	0	23	0	23	3	15	39	20
Sliced Carrot Rings	0	23	0	23	3	15	56	13
Squash	3	11	80	8	1	21	8	23
Stewed Tomatoes	2	19	50	17	4	10	31	21
Wax Beans	1	20	100	1	2	20	75	4
Whole Kernel Corn	5	6	98	3	1	21	100	1

Table 7

Rank of Vegetables in Selection and Consumption Females 35 - 50	Number of Servings And Rank		% Of Consumption And Rank		Number of Servings And Rank		% Of Consumption And Rank	
	CZ				XZ			
VEGETABLES EVENING MEAL	No.	Rank	%	Rank	No.	Rank	%	Rank
Asparagus / Cheese Sauce	3	13	61	11	8	6	75	8
Broccoli / Almond Butter	2	16	79	7	11	2	88	5
Broccoli	5	8	87	5	3	16	78	7
Brussel Sprouts	4	11	21	21	3	16	99	3
Candied Sweet Potatoes	4	11	36	18	5	9	68	11
Cauliflower	5	8	90	4	0	23	0	23
Creamed Peas	2	16	50	14	5	9	55	19
Creole Egg Plant	1	20	100	1	2	19	100	1
French Style Green Beans	6	4	36	18	5	9	56	17
Harvard Beets	3	13	61	11	5	9	62	13
Mixed Vegetables	3	13	50	14	4	14	71	10
Peas and Onions	2	16	92	3	10	4	66	12
Potatoes: Au Gratin	6	4	66	9	8	6	73	9
Baked	8	3	54	13	11	2	56	17
Boiled	6	4	83	6	10	4	48	22
Buttered	6	4	42	17	2	19	84	6
Mashed	25	1	71	8	28	1	62	13
Oven Browned	0	23	0	23	4	14	58	16
Sliced Carrot Rings	0	23	0	23	1	22	100	1
Squash	5	8	50	14	2	19	54	21
Stewed Tomatoes	2	16	33	20	8	6	55	19
Wax Beans	1	20	100	1	3	16	61	15
Whole Kernel Corn	10	2	62	10	5	9	97	4

Table 8

Each vegetable was charted individually comparing percentage of consumption among the control group age 20-34 coded CY, the experimental group age 20-34 coded XY, the control group age 35-50 coded CZ and the experimental group age 35-50 coded XZ.

In the no choice menus there were two menus, #4 and #8 on which there was only one vegetable offered. The second vegetable was substituted with noodles on menu #4 and fried rice on menu #8. There were 4 servings of noodles and 6 servings of fried rice during the 16 days of the no choice presentation menu served to the experimental group. This reduced the total vegetables served to the XY group from 150 to 147, and to the XZ group from 150 to 143.

FIGURES

Asparagus With Cheese Sauce

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	4	3
Rank of Serving	8	15
Percentage of Serving Consumed	58%	45%
Rank of Consumption	15	19
35 - 50	CZ	XZ
Number of Servings	3	8
Rank of Serving	13	6
Percentage of Serving Consumed	61%	75%
Rank of Consumption	11	8

COMMENT:

XZ group had the highest consumption of serving. It also had the most number of servings.

See Figure 1

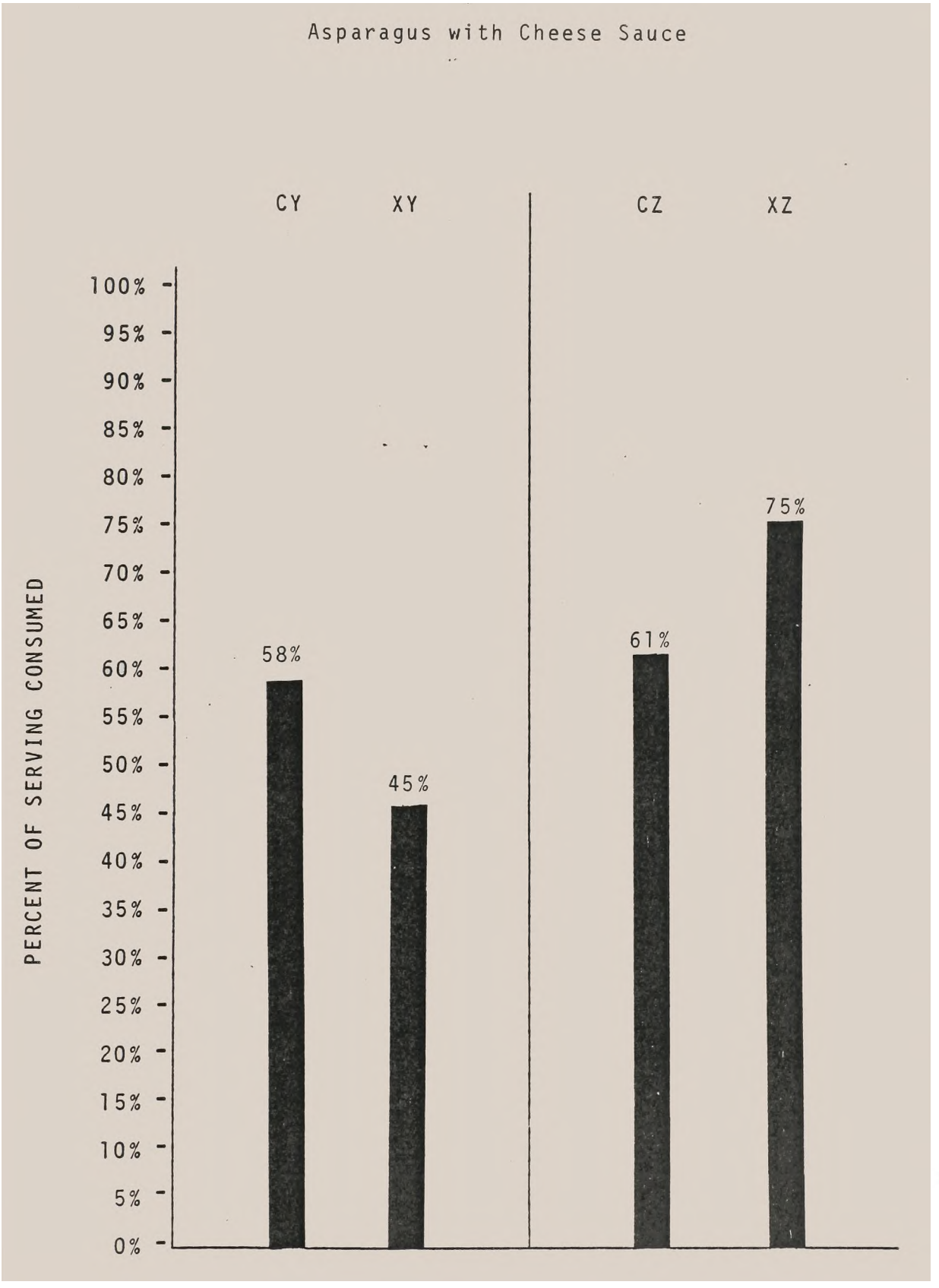

Asparagus with Cheese Sauce
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
58%
45%
61%
75%

FIGURE 1

Broccoli With Almond Butter

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	4	12
Rank of Serving	11	2
Percentage of Serving Consumed	66%	72%
Rank of Consumption	12	7
35 - 50	CZ	XZ
Number of Servings	2	11
Rank of Serving	16	2
Percentage of Serving Consumed	79%	88%
Rank of Consumption	7	5

COMMENT:

XZ group had the highest consumption of serving. XY group had the most number of servings. The CY and CZ groups had mediocre selection of the vegetable, whereas the XY and XZ groups were given to over six times the number of the CY and CZ groups and the consumption was greater by 8%.

See Figure 2

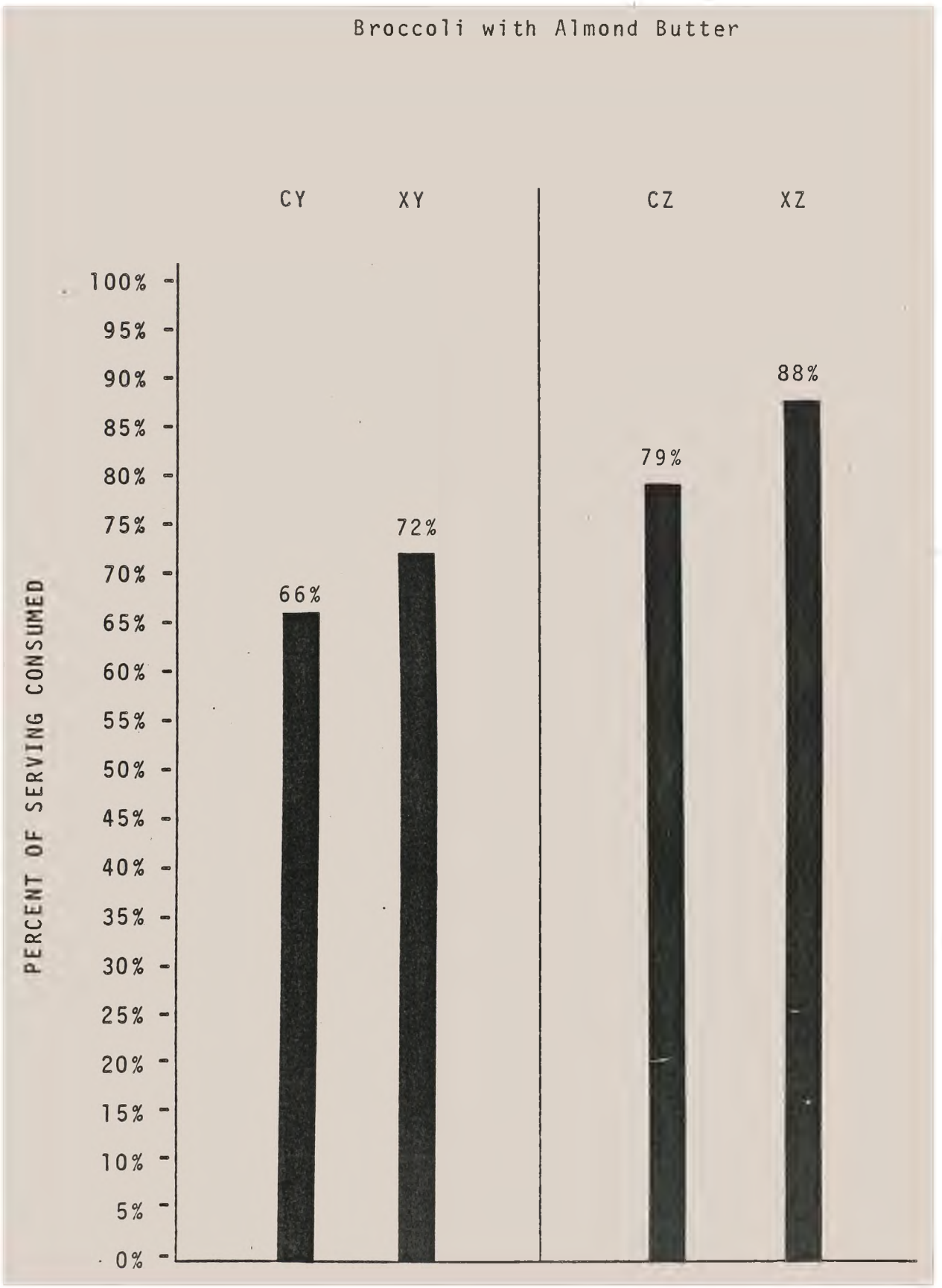

Broccoli with Almond Butter
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
PERCENT OF SERVING CONSUMED
66%
72%
79%
88%

FIGURE 2

Broccoli

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	6	4
Rank of Serving	5	10
Percentage of Serving Consumed	75%	78%
Rank of Consumption	5	7
35 - 50	CZ	XZ
Number of Servings	6	4
Rank of Serving	5	10
Percentage of Serving Consumed	75%	73%
Rank of Consumption	10	6

COMMENT:

CY and CZ groups had the highest number of servings. CY and CZ had a higher percentage of consumption over the XY and XZ groups by 5%.

See Figure 3

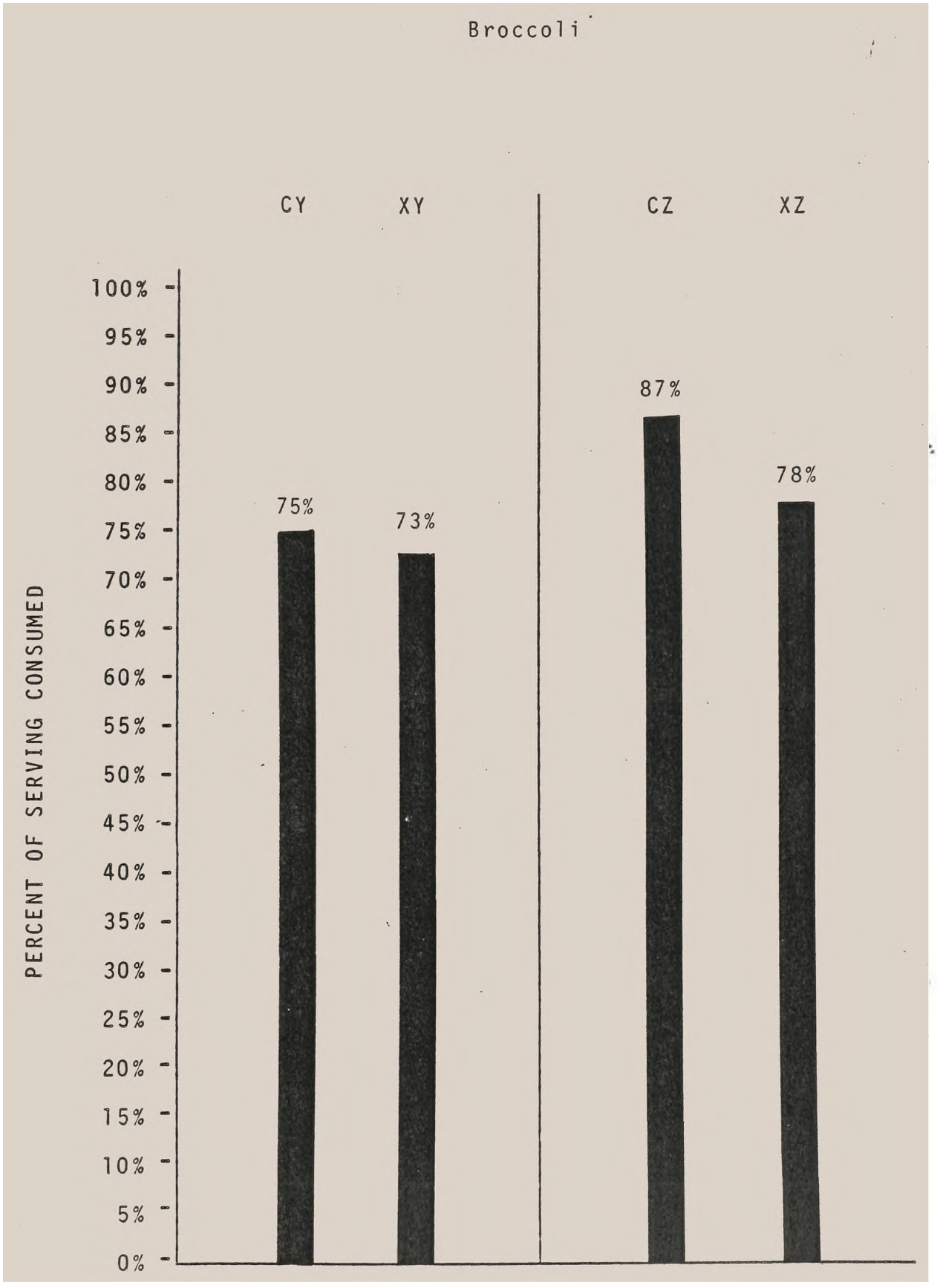

Broccoli
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
PERCENT OF SERVING CONSUMED
75%
73%
87%
78%

FIGURE 3

Brussel Sprouts

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	4	3
Rank of Serving	11	16
Percentage of Serving Consumed	21%	99%
Rank of Consumption	21	3
35 - 50	CZ	XZ
Number of Servings	3	4
Rank of Serving	11	10
Percentage of Serving Consumed	37%	58%
Rank of Consumption	20	11

COMMENT:

XY and XZ groups had the highest consumption of serving. The CY and CZ groups selected the vegetable but had a low percentage of consumption.

See Figure 4

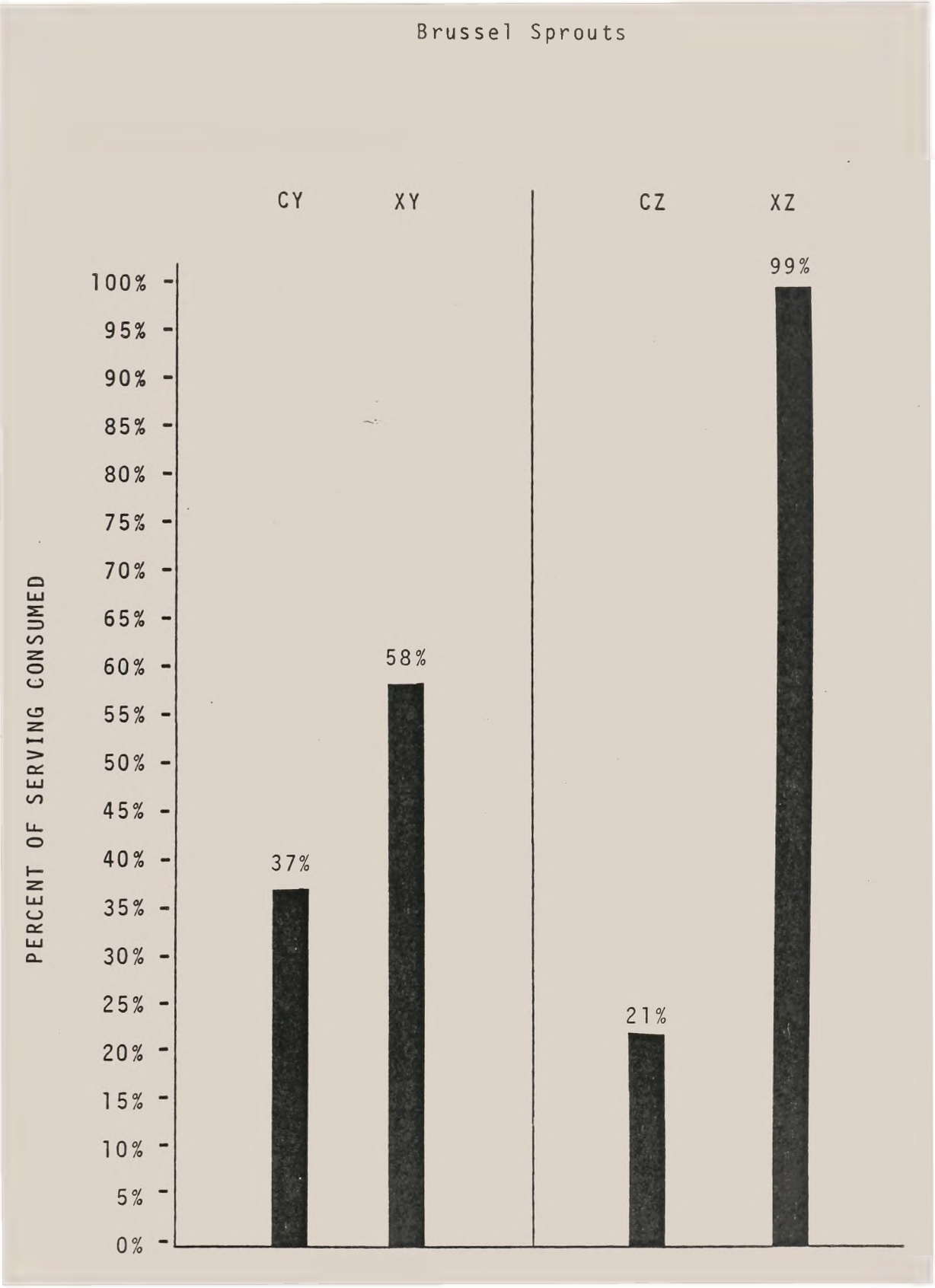

Brussel Sprouts
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
37%
58%
21%
99%

FIGURE 4

Candied Sweet Potatoes

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	4	5
Rank of Serving	8	8
Percentage of Serving Consumed	77%	48%
Rank of Consumption	9	18
35 - 50	CZ	XZ
Number of Servings	4	5
Rank of Serving	11	9
Percentage of Serving Consumed	36%	68%
Rank of Consumption	18	11

COMMENT:

The total consumption of the CY and CZ groups was slightly less than the total consumption of the XY and XZ groups.

See Figure 5

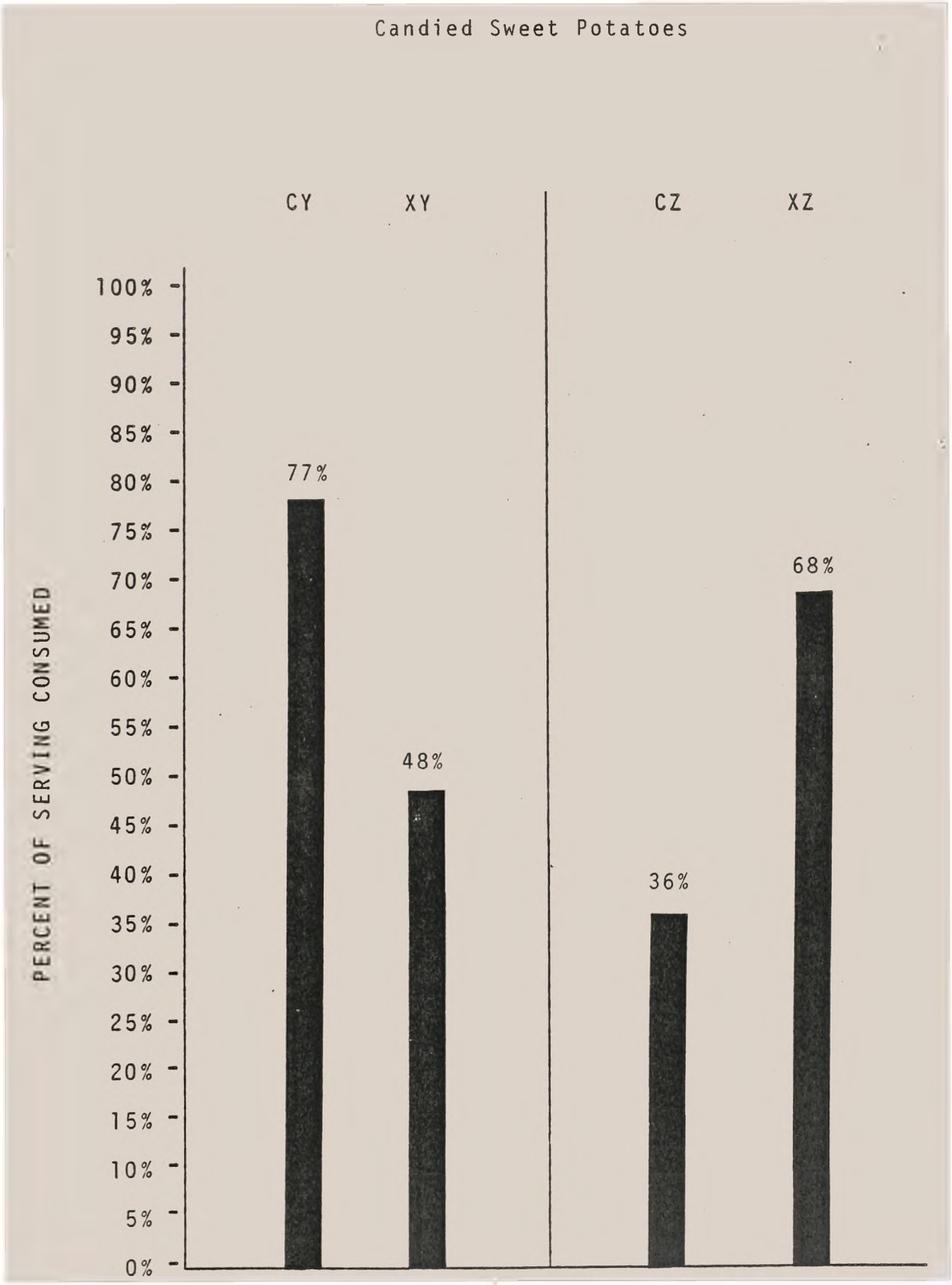

Candied Sweet Potatoes
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
77%
48%
36%
68%

FIGURE 5

Cauliflower

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	2	3
Rank of Serving	18	15
Percentage of Serving Consumed	83%	56%
Rank of Consumption	6	13
35 - 50	CZ	XZ
Number of Servings	5	0
Rank of Serving	8	23
Percentage of Serving Consumed	90%	0%
Rank of Consumption	4	23

COMMENT:

CY and CZ groups had the highest consumption of servings and the highest number of servings indication that they ordered it because they liked it. The XZ group completely rejected the vegetable thus ranking it the lowest in selection and consumption in the group.

See Figure 6

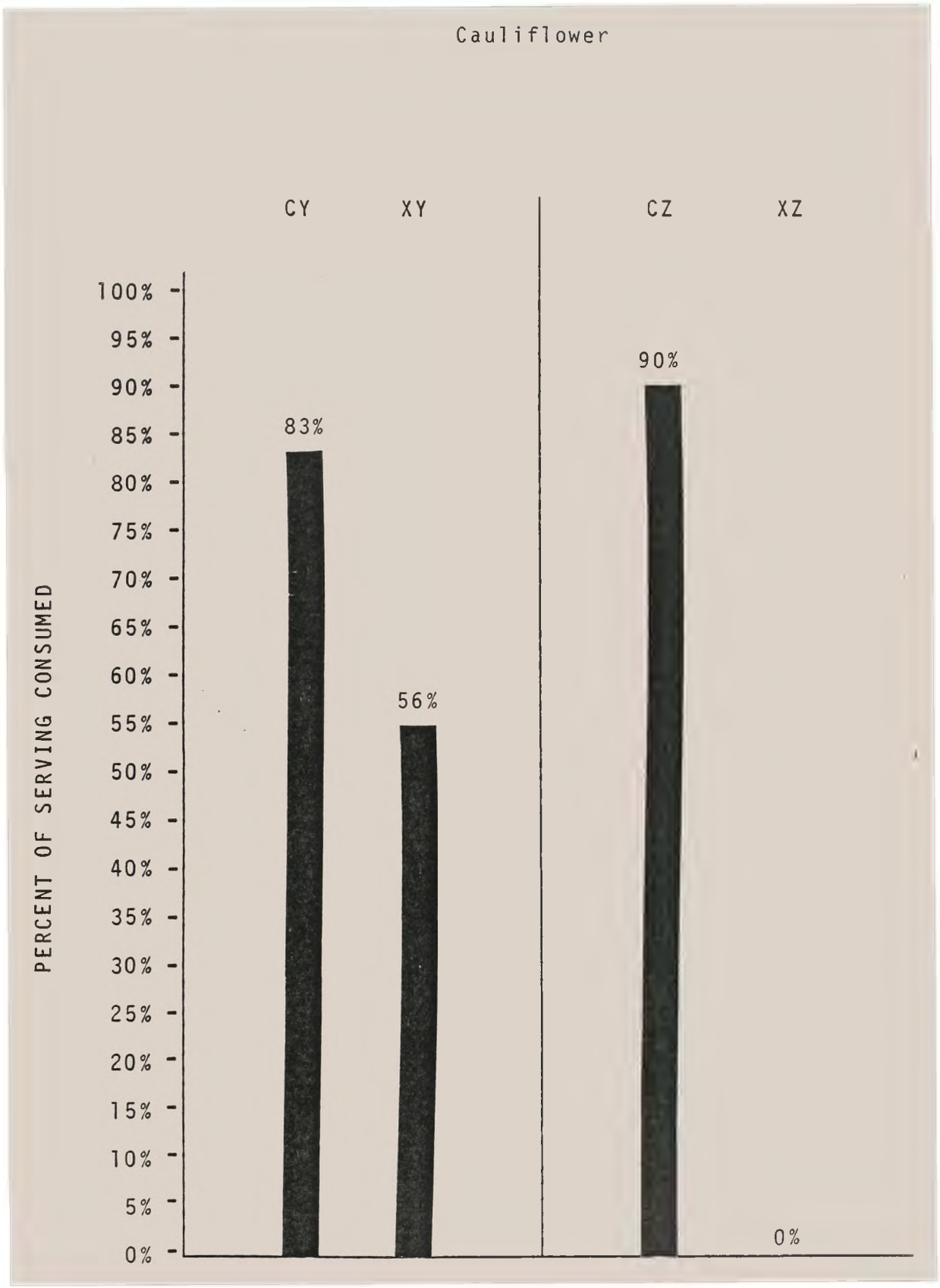

Cauliflower
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
83%
56%
90%
0%

FIGURE 6

Creamed Peas

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	4	8
Rank of Serving	8	4
Percentage of Serving Consumed	83%	54%
Rank of Consumption	6	15
35 - 50	CZ	XZ
Number of Servings	2	5
Rank of Serving	16	9
Percentage of Serving Consumed	50%	55%
Rank of Consumption	14	19

COMMENT:

CY group had the highest consumption of servings but the XY and XZ groups consumed better than 50%.

See Figure 7

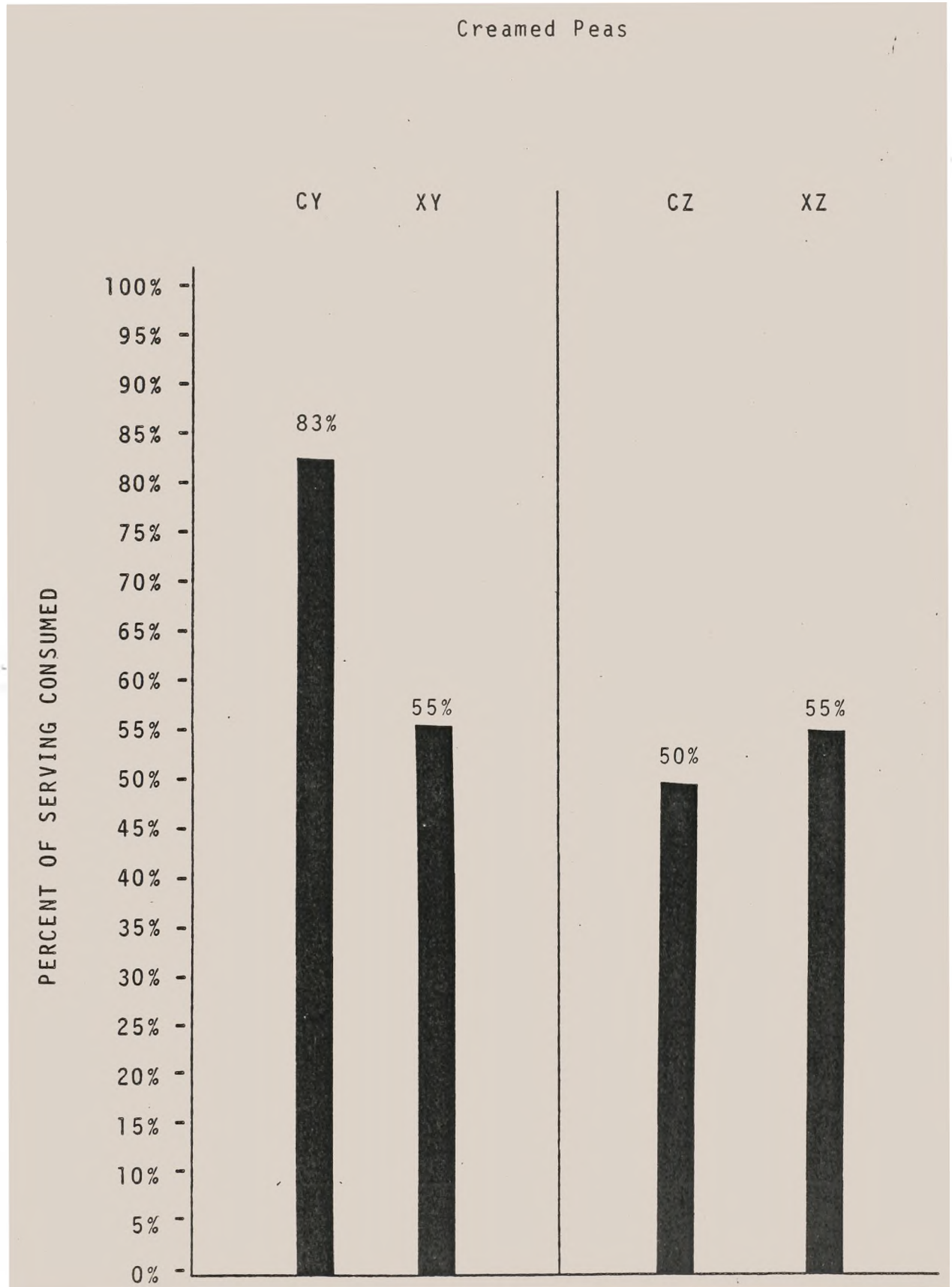

Creamed Peas
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
83%
55%
50%
55%

FIGURE 7

Creole Egg Plant

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	0	3
Rank of Serving	23	15
Percentage of Serving Consumed	0%	66%
Rank of Consumption	23	10
35 - 50	CZ	XZ
Number of Servings	1	2
Rank of Serving	20	19
Percentage of Serving Consumed	100%	100%
Rank of Consumption	1	1

COMMENT:

CY consumption and number of servings ranked the lowest in this group. CZ and XZ had 100% consumption of serving and ranked #1.

See Figure 8

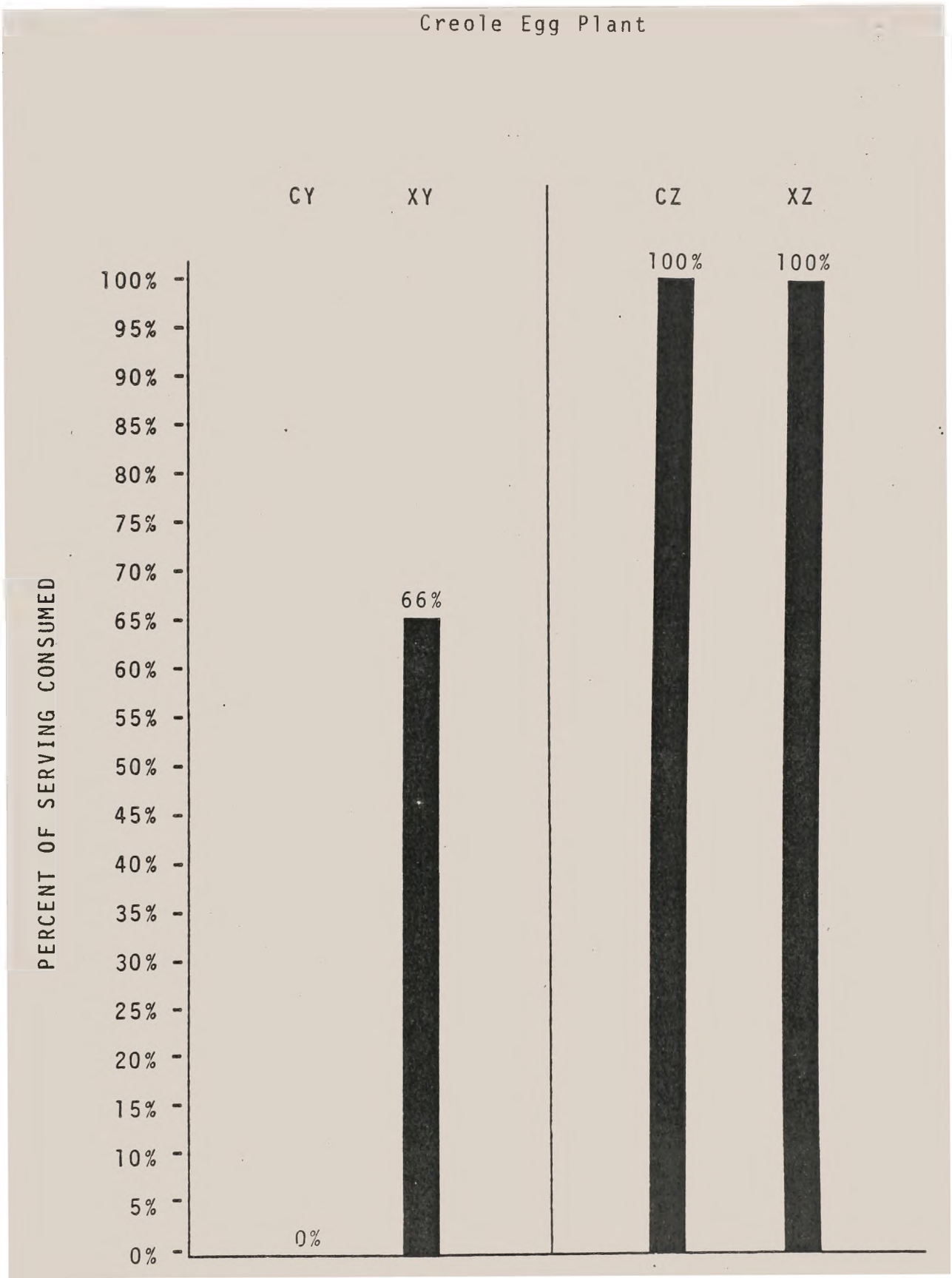

Creole Egg Plant
CY
XY
CZ
XZ
100%
66%
0%
100%
100%
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%

FIGURE 8

French Style Green Beans

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	7	12
Rank of Serving	3	2
Percentage of Serving Consumed	93%	83%
Rank of Consumption	5	3
35 - 50	CZ	XZ
Number of Servings	6	5
Rank of Serving	4	9
Percentage of Serving Consumed	36%	56%
Rank of Consumption	18	17

COMMENT:

CY and XY groups had highest consumption of servings and the highest number of servings in comparison with CZ and XZ.

See Figure 9

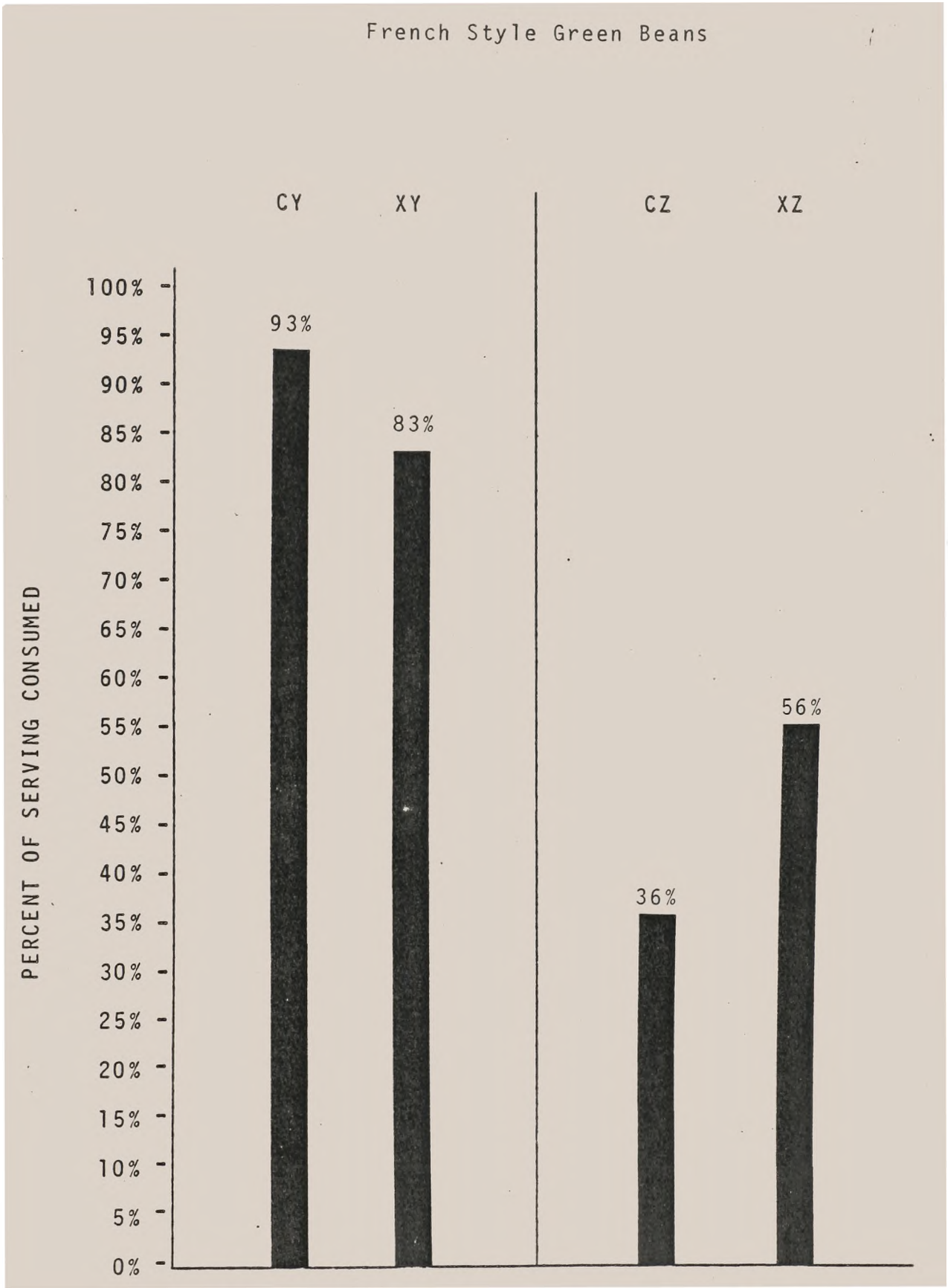

French Style Green Beans
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
93%
83%
36%
56%

FIGURE 9

Harvard Beets

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	3	6
Rank of Serving	11	7
Percentage of Serving Consumed	68%	21%
Rank of Consumption	11	22
35 - 50	CZ	XZ
Number of Servings	3	5
Rank of Serving	13	9
Percentage of Serving Consumed	61%	62%
Rank of Consumption	11	13

COMMENT:

CY group had the highest consumption of servings and the XY group had the lowest. The CZ and XZ groups had almost equal consumption.

See Figure 10

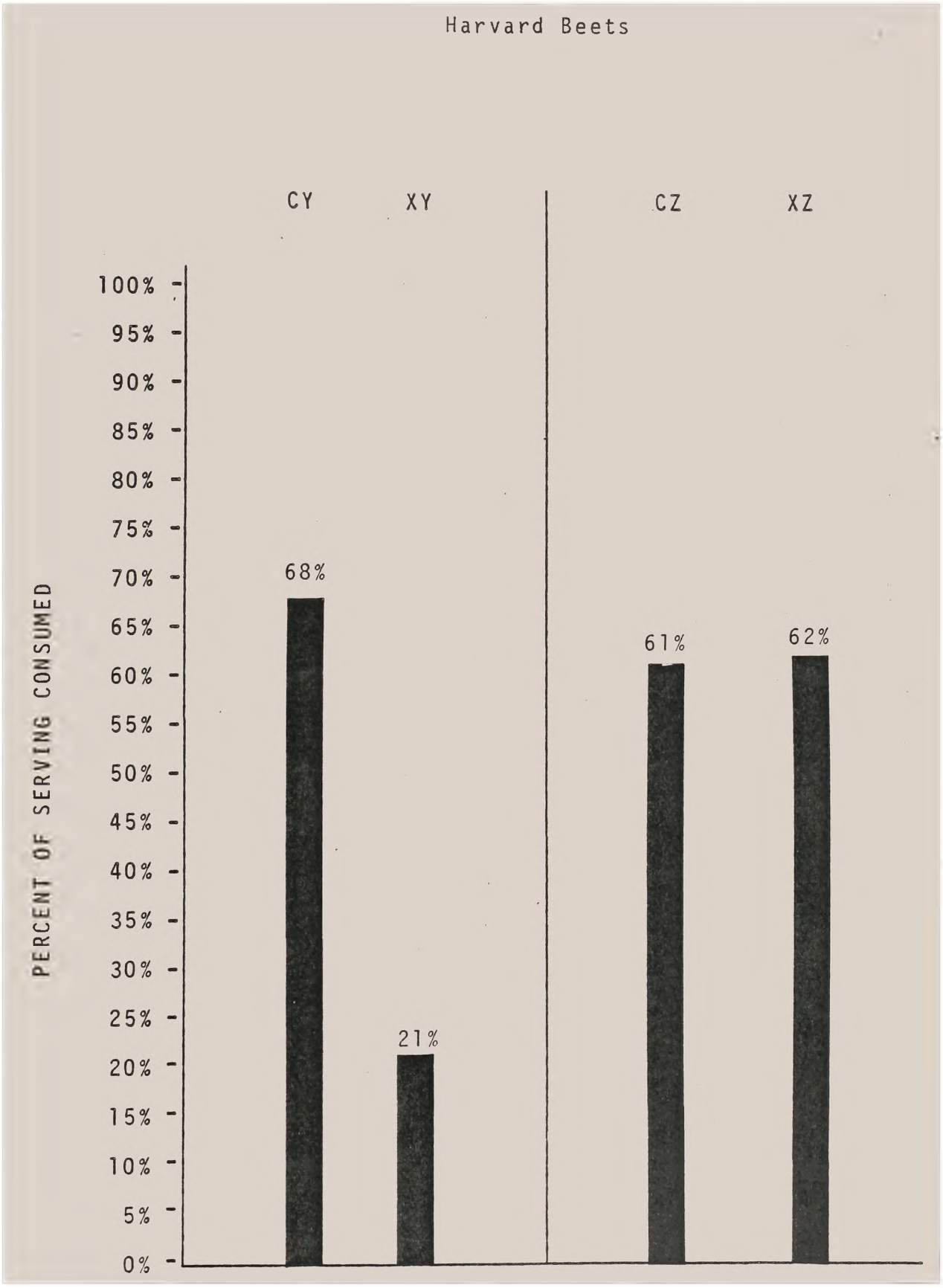

Harvard Beets
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
PERCENT OF SERVING CONSUMED
68%
21%
61%
62%

FIGURE 10

Mixed Vegetables

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	5	5
Rank of Serving	6	8
Percentage of Serving Consumed	43%	52%
Rank of Consumption	18	17
35 - 50	CZ	XZ
Number of Servings	3	4
Rank of Serving	13	14
Percentage of Serving Consumed	50%	71%
Rank of Consumption	14	10

COMMENT:

XY group had the highest consumption of servings followed by the XY group.

See Figure 11

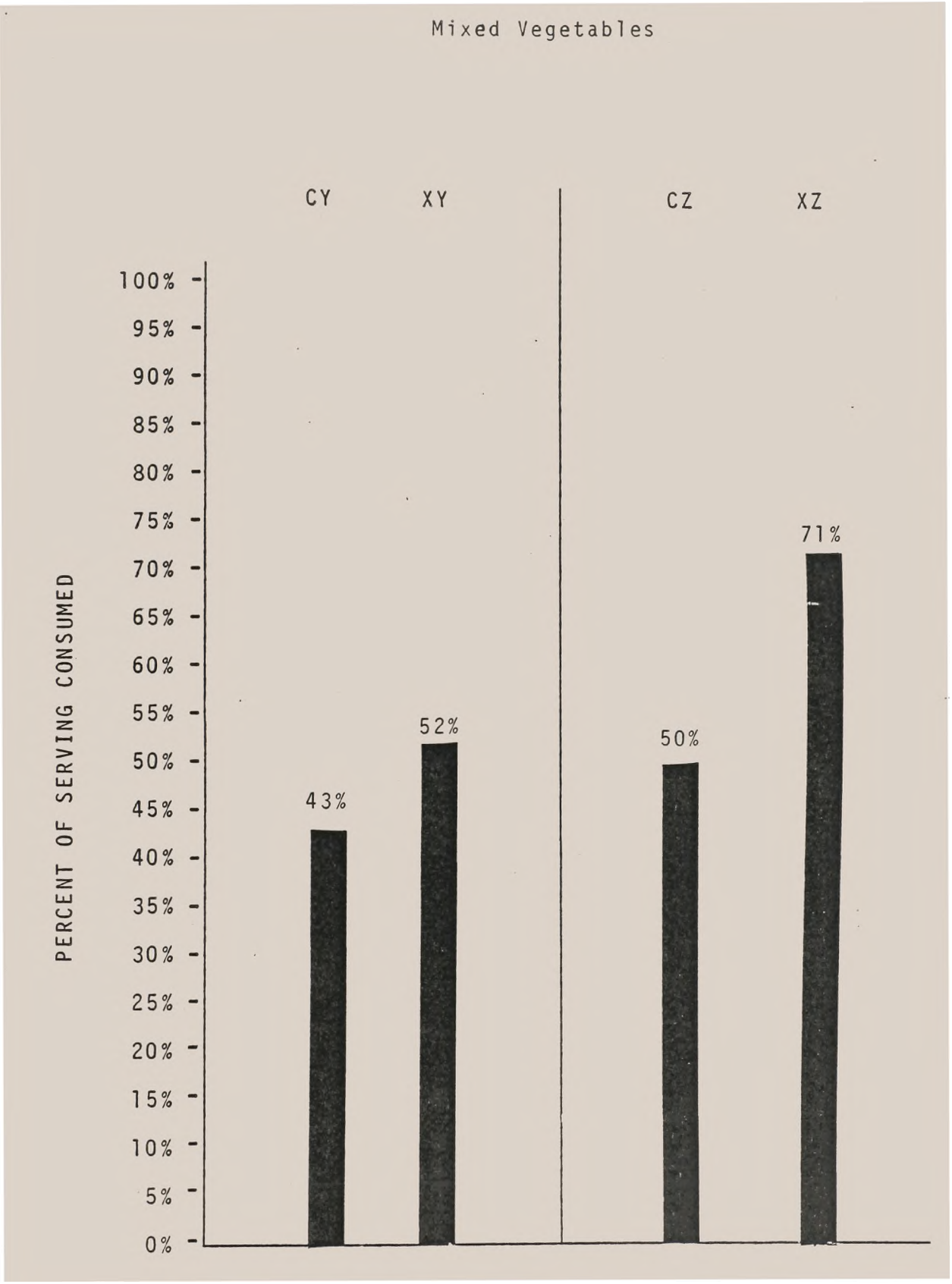

Mixed Vegetables
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
43%
52%
50%
71%

FIGURE 11

Peas and Onions

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	3	4
Rank of Serving	11	10
Percentage of Serving Consumed	94%	58%
Rank of Consumption	4	11
35 - 50	CZ	XZ
Number of Servings	2	10
Rank of Serving	16	4
Percentage of Serving Consumed	92%	66%
Rank of Consumption	3	12

COMMENT:

CY and CZ groups had the highest consumption of serving but the XY and XZ groups had three times as many servings.

See Figure 12

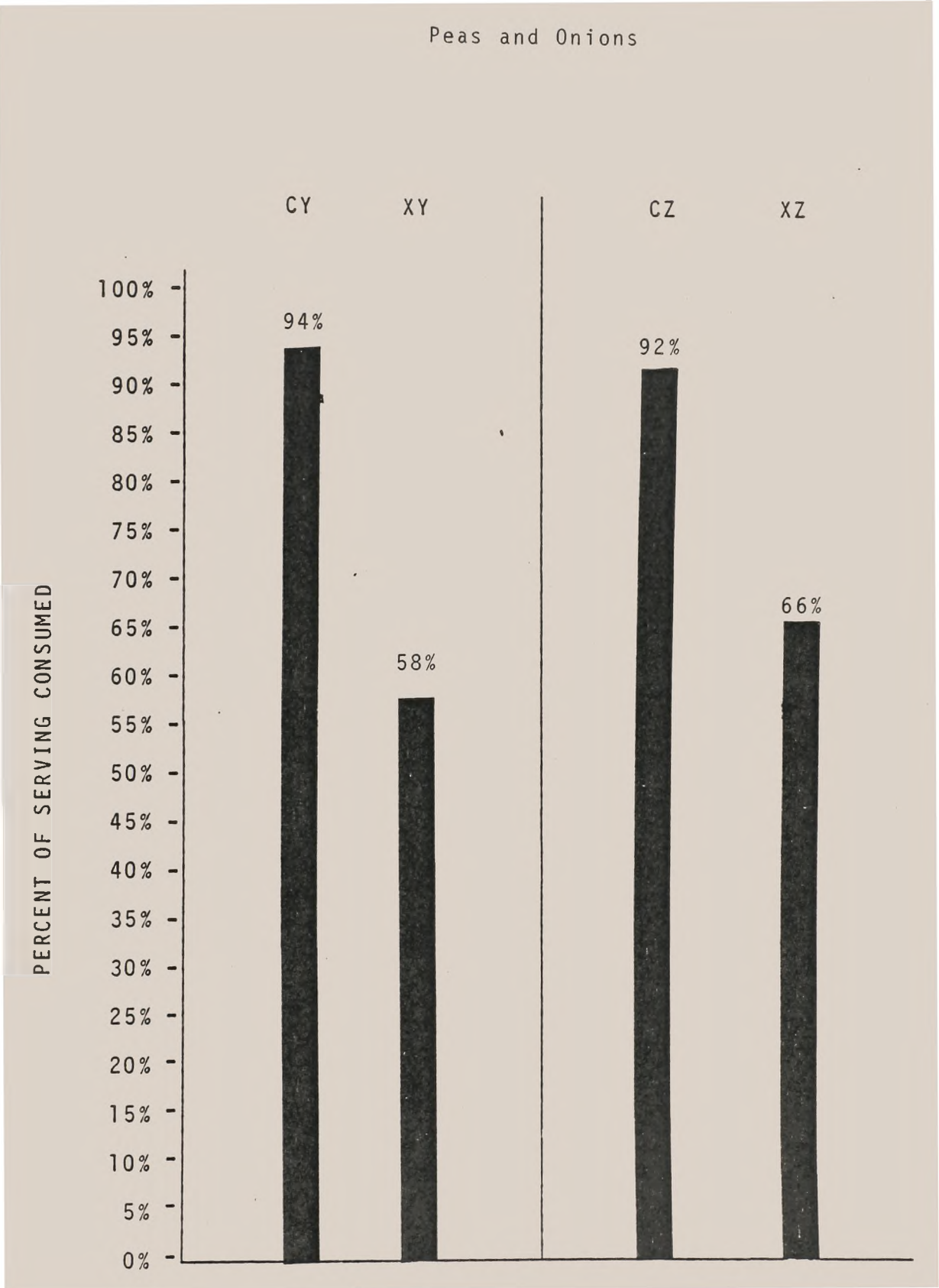

Peas and Onions
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
94%
58%
92%
66%
PERCENT OF SERVING CONSUMED

FIGURE 12

Potatoes Au Gratin

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	3	8
Rank of Serving	11	4
Percentage of Serving Consumed	100%	74%
Rank of Consumption	1	9
35 - 50	CZ	XZ
Number of Servings	6	8
Rank of Serving	4	6
Percentage of Serving Consumed	66%	73%
Rank of Consumption	9	9

COMMENT:

CY group had highest consumption but lowest number of servings. However, the percentage of consumption if all groups was over 65%.

See Figure 13

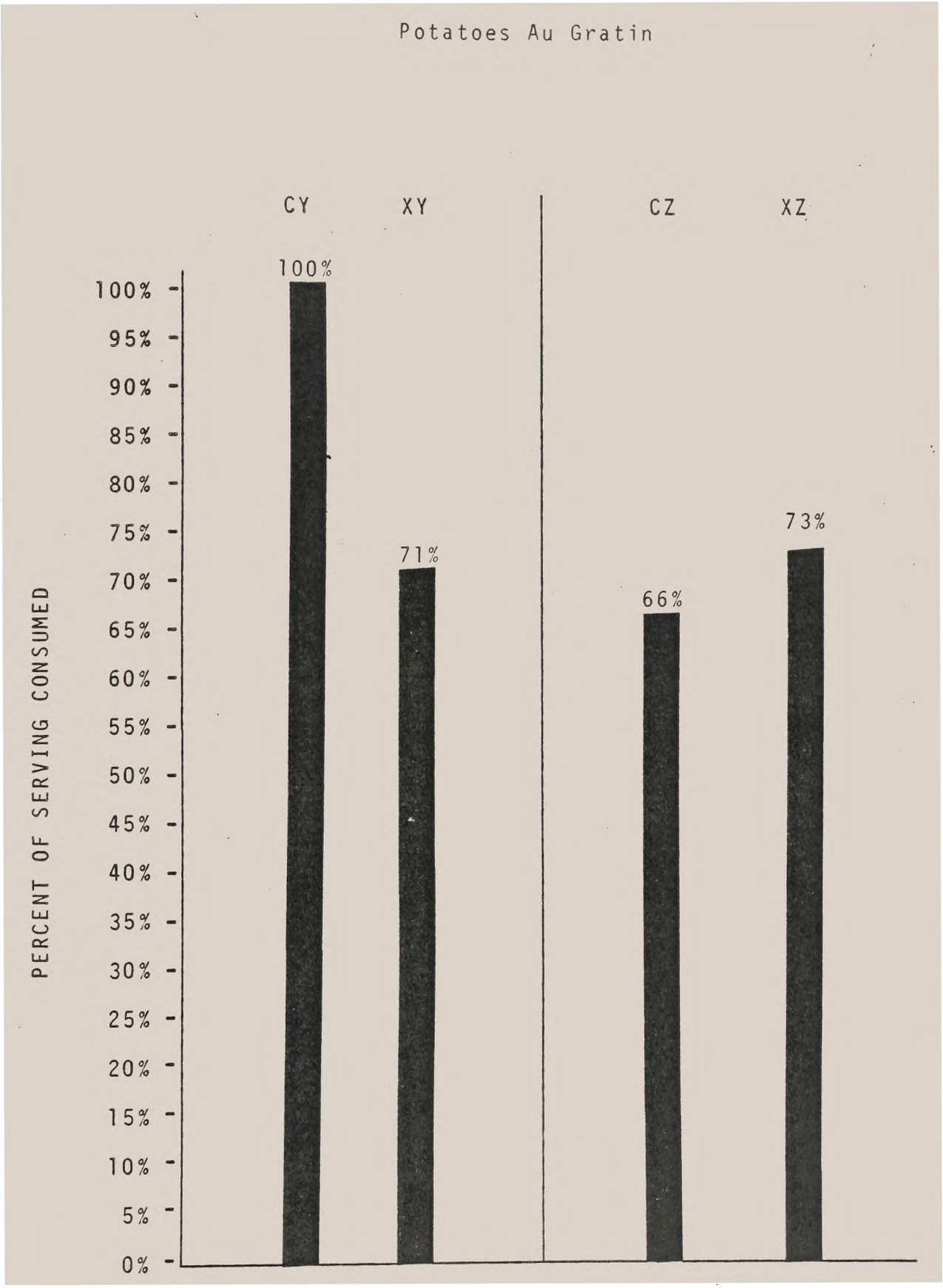

Potatoes Au Gratin
CY
XY
CZ
XZ
100%
71%
66%
73%
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%

FIGURE 13

Potatoes Baked

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	13	7
Rank of Serving	2	6
Percentage of Serving Consumed	43%	72%
Rank of Consumption	18	7
35 - 50	CZ	XZ
Number of Servings	8	11
Rank of Serving	3	2
Percentage of Serving Consumed	54%	56%
Rank of Consumption	13	17

COMMENT:

The XY and XZ groups had the highest consumption of servings.

See Figure 14

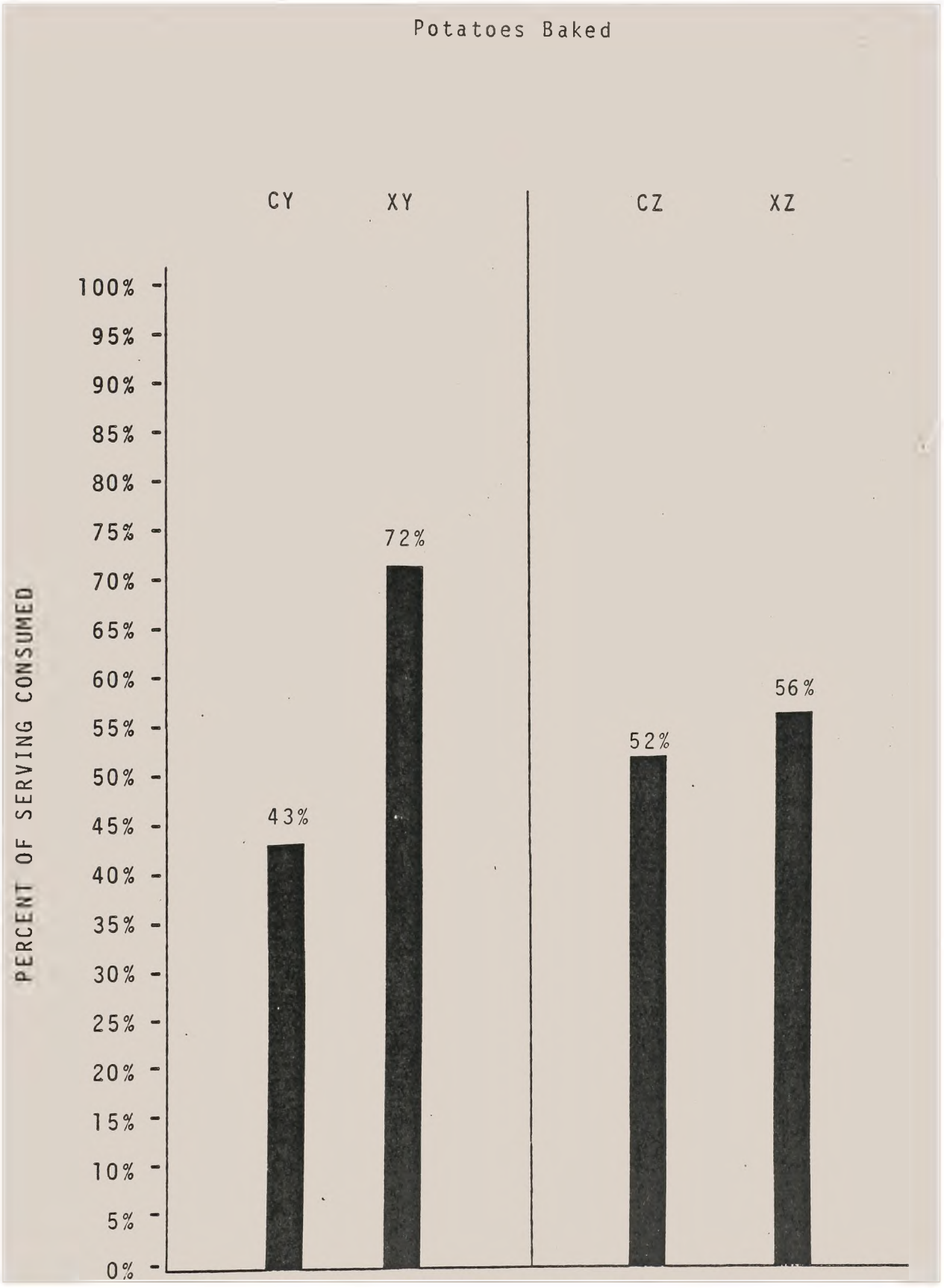

Potatoes Baked
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
PERCENT OF SERVING CONSUMED
43%
72%
52%
56%

FIGURE 14

Potatoes Boiled

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	7	4
Rank of Serving	3	10
Percentage of Serving Consumed	55%	54%
Rank of Consumption	16	15
35 - 50	CZ	XZ
Number of Servings	6	10
Rank of Serving	4	4
Percentage of Serving Consumed	83%	48%
Rank of Consumption	6	22

COMMENT:

CZ group had the highest consumption of serving. All the other groups averaged 50% of consumption.

See Figure 15

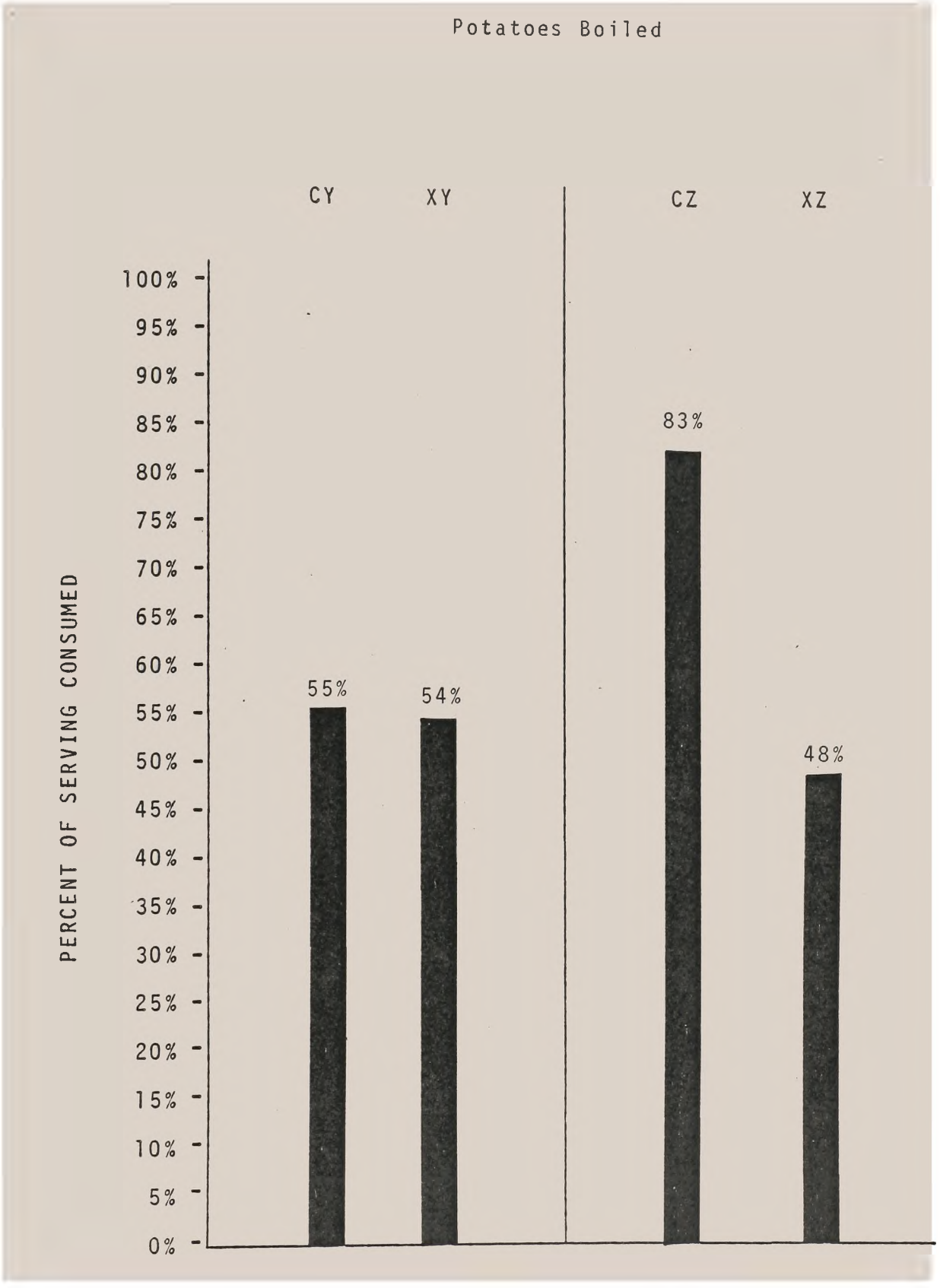

Potatoes Boiled
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
55%
54%
83%
48%

FIGURE 15

Potatoes Buttered

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	3	1
Rank of Serving	1	21
Percentage of Serving Consumed	65%	100%
Rank of Consumption	3	1
35 - 50	CZ	XZ
Number of Servings	6	2
Rank of Serving	4	19
Percentage of Serving Consumed	42%	84%
Rank of Consumption	17	6

COMMENT:

XY group had the highest consumption of serving.

See Figure 16

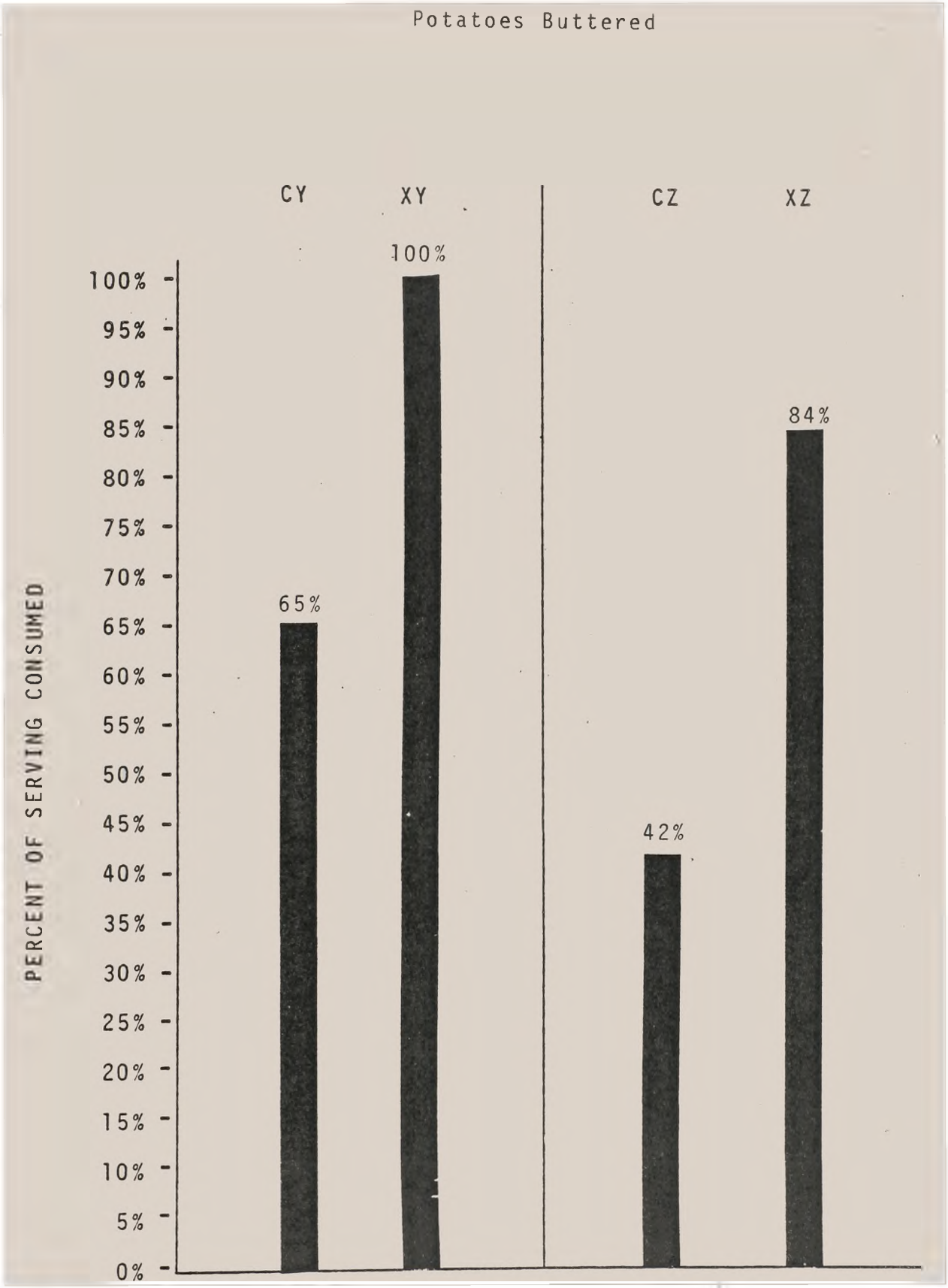

Potatoes Buttered
CY
XY
CZ
XZ
100%
65%
42%
84%
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%

FIGURE 16

Potatoes Mashed

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	14	44
Rank of Serving	1	1
Percentage of Serving Consumed	65%	74%
Rank of Consumption	13	5
35 - 50	CZ	XZ
Number of Servings	25	28
Rank of Serving	1	1
Percentage of Serving Consumed	71%	62%
Rank of Consumption	8	13

COMMENT:

XY group had the highest consumption and number of servings. However, all groups averaged better than 62% consumption.

See Figure 17

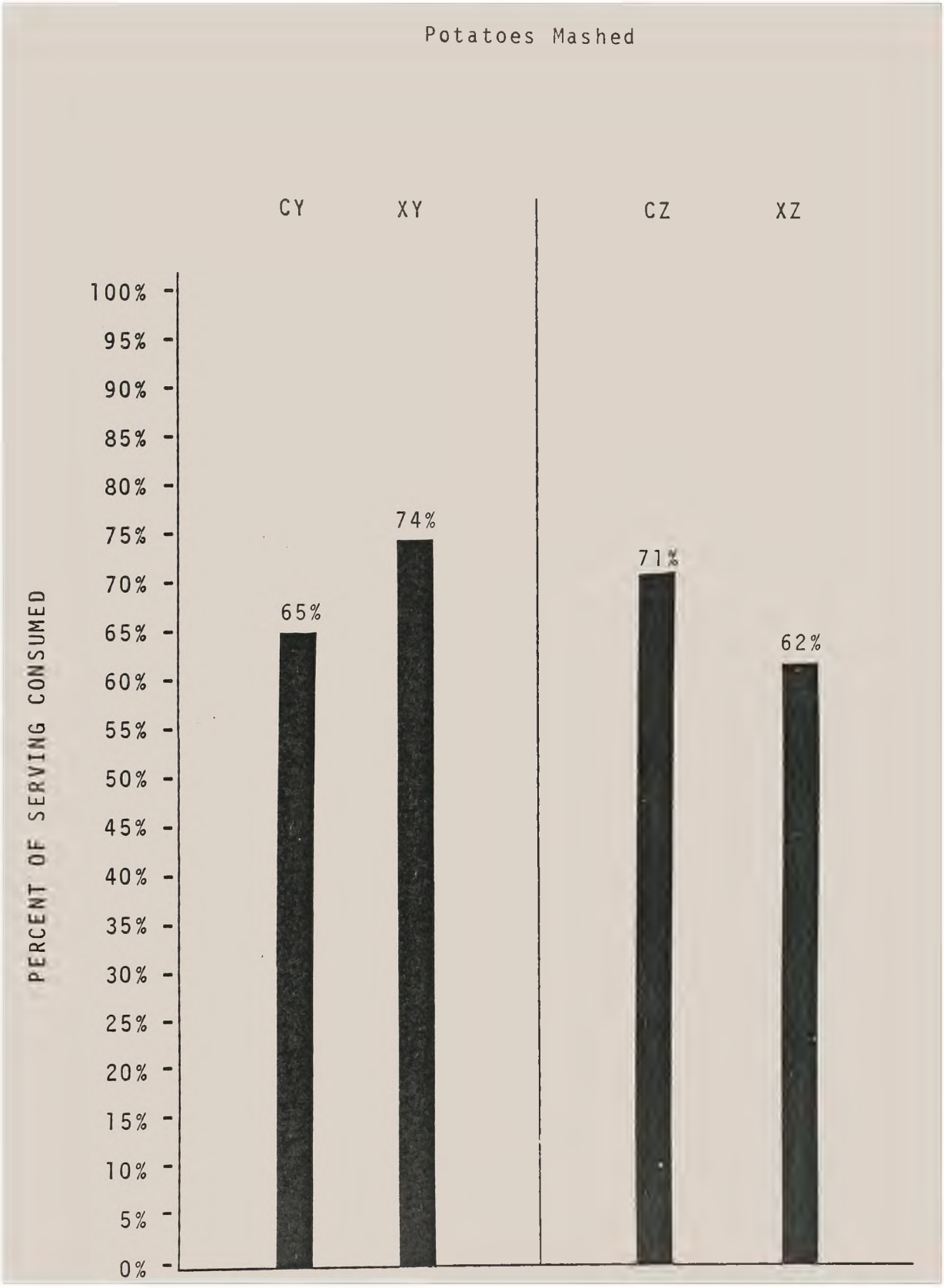

Potatoes Mashed
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
PERCENT OF SERVING CONSUMED
65%
74%
71%
62%

FIGURE 17

Potatoes Oven Browned

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	0	3
Rank of Serving	23	15
Percentage of Serving Consumed	0%	39%
Rank of Consumption	23	20
35 - 50	CZ	XZ
Number of Servings	0	4
Rank of Serving	23	14
Percentage of Serving Consumed	0%	58%
Rank of Consumption	23	16

COMMENT:

XZ group had the highest consumption of serving. CY and CZ did not order this vegetable ranking it the lowest in serving.

See Figure 18

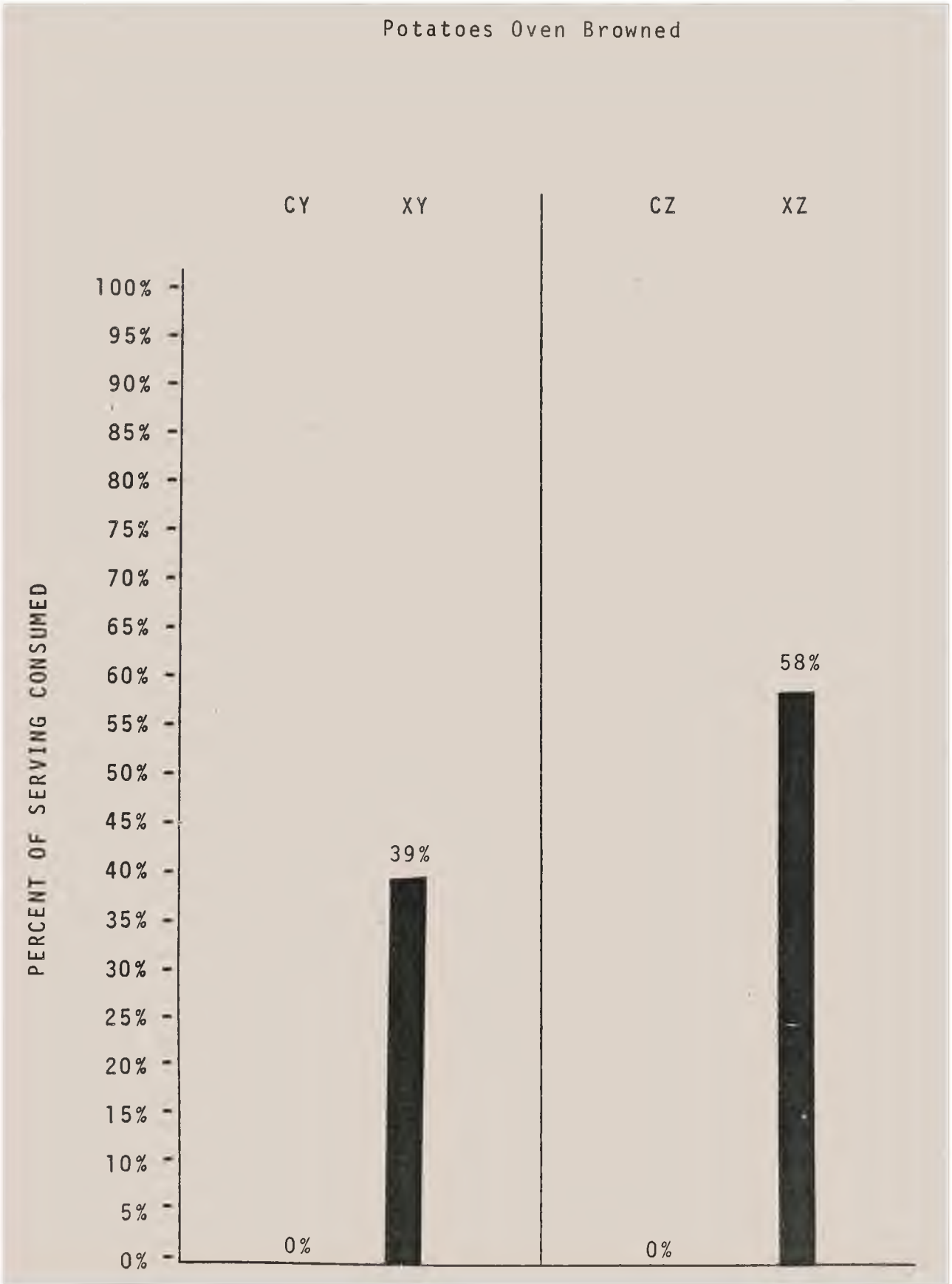

Potatoes Oven Browned
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0%
39%
0%
58%

FIGURE 18

Sliced Carrot Rings

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	0	3
Rank of Serving	23	15
Percentage of Serving Consumed	0%	56%
Rank of Consumption	23	13
35 - 50	CZ	XZ
Number of Servings	0	1
Rank of Serving	23	22
Percentage of Serving Consumed	0%	100%
Rank of Consumption	23	1

COMMENT:

XZ group had the highest consumption of serving.

CY and CZ groups did not order the vegetable.

See Figure 19

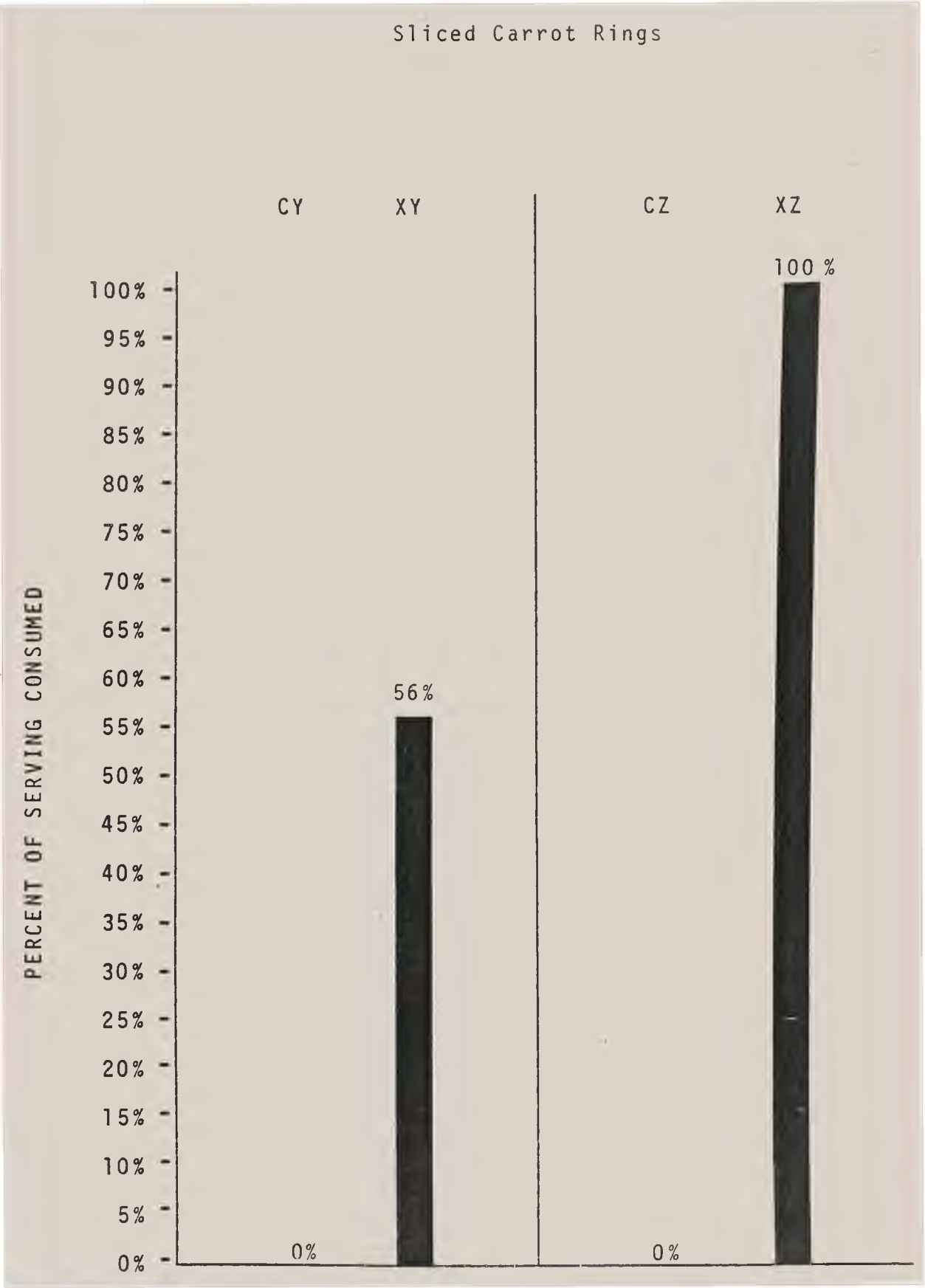

Sliced Carrot Rings
CY
XY
CZ
XZ
100 %
56%
0%
0%
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%

FIGURE 19

Squash

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	3	1
Rank of Serving	11	21
Percentage of Serving Consumed	80%	8%
Rank of Consumption	8	23
35 - 50	CZ	XZ
Number of Servings	5	2
Rank of Serving	8	19
Percentage of Serving Consumed	50%	54%
Rank of Consumption	14	21

COMMENT:

CY group had the highest consumption of serving.

The CZ and XZ groups consumed 50% better.

See Figure 20

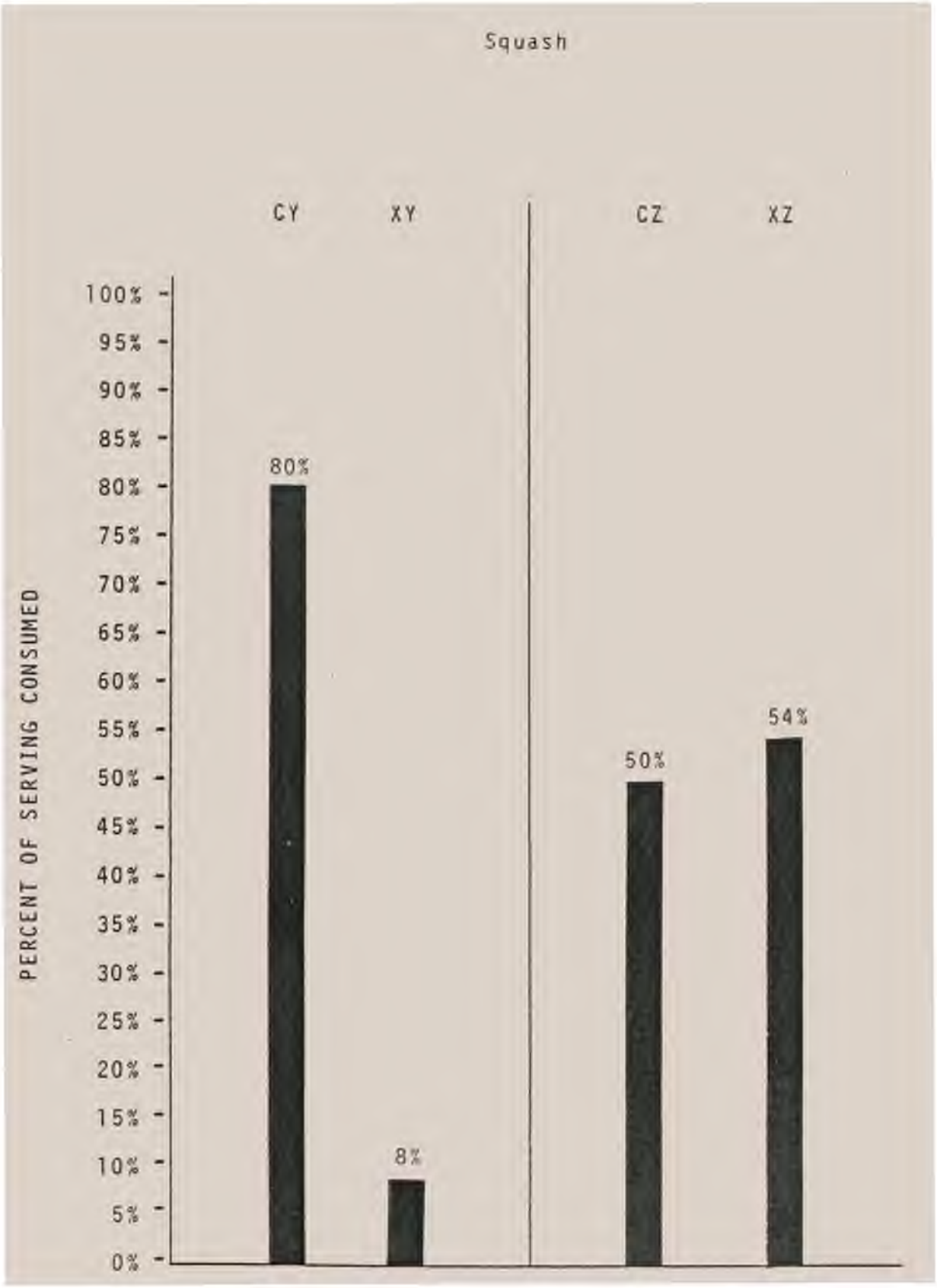

Squash
CY
XY
CZ
XZ
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
PERCENT OF SERVING CONSUMED
80%
8%
50%
54%

FIGURE 20

Stewed Tomatoes

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	2	4
Rank of Serving	19	10
Percentage of Serving Consumed	50%	31%
Rank of Consumption	17	21
35 - 50	CZ	XZ
Number of Servings	2	8
Rank of Serving	16	6
Percentage of Serving Consumed	33%	55%
Rank of Consumption	20	19

COMMENT:

XZ group had the highest number and greatest percentage of consumption of serving.

See Figure 21

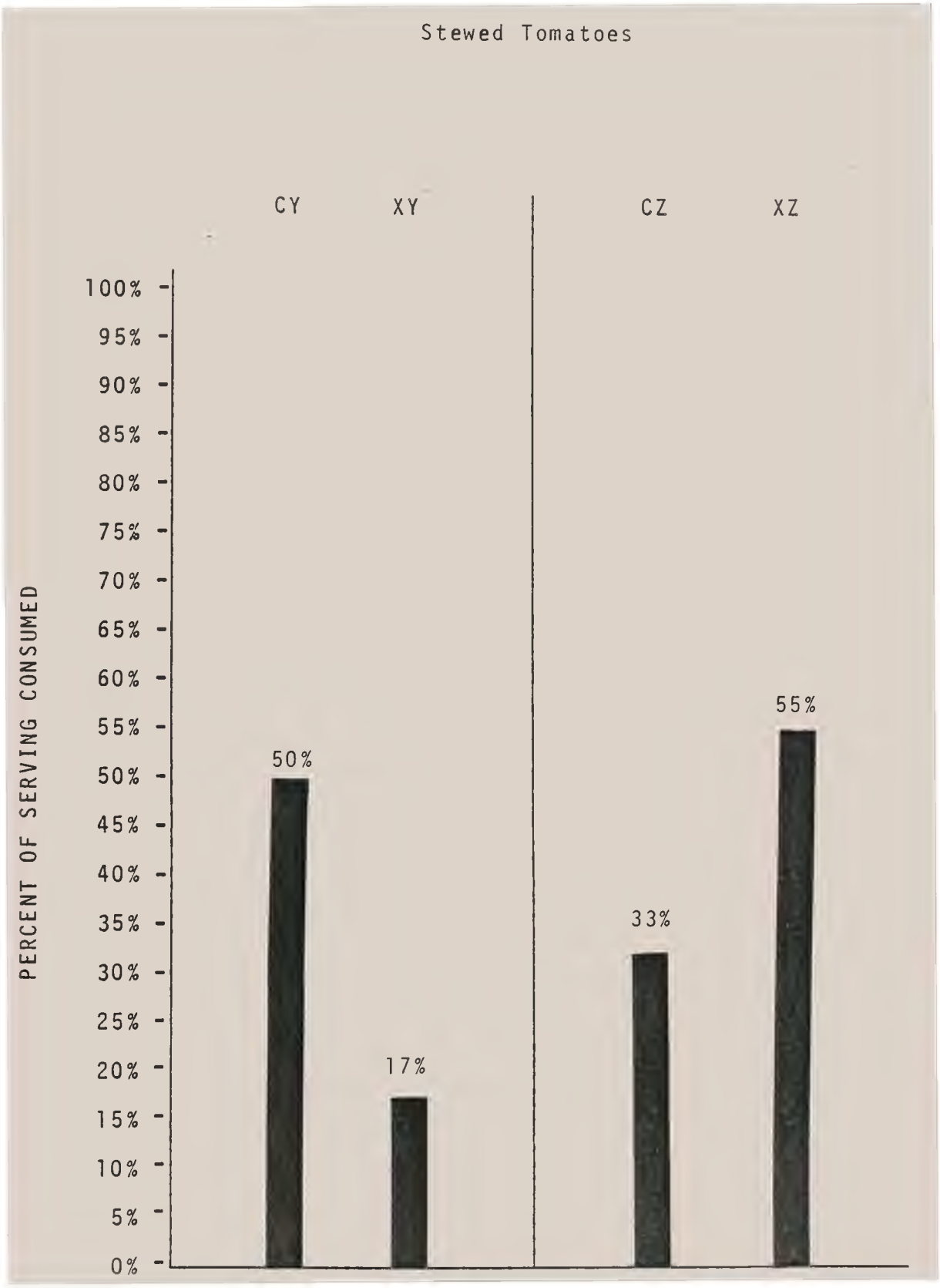

Stewed Tomatoes
CY
XY
CZ
XZ
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
50%
17%
33%
55%

FIGURE 21

Wax Beans

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	1	2
Rank of Serving	20	20
Percentage of Serving Consumed	100%	75%
Rank of Consumption	1	4
35 - 50	CZ	XZ
Number of Servings	1	3
Rank of Serving	20	16
Percentage of Serving Consumed	100%	61%
Rank of Consumption	1	15

COMMENT:

CY and CZ had 100% consumption of serving. XY and XZ had over 61% consumption.

See Figure 22

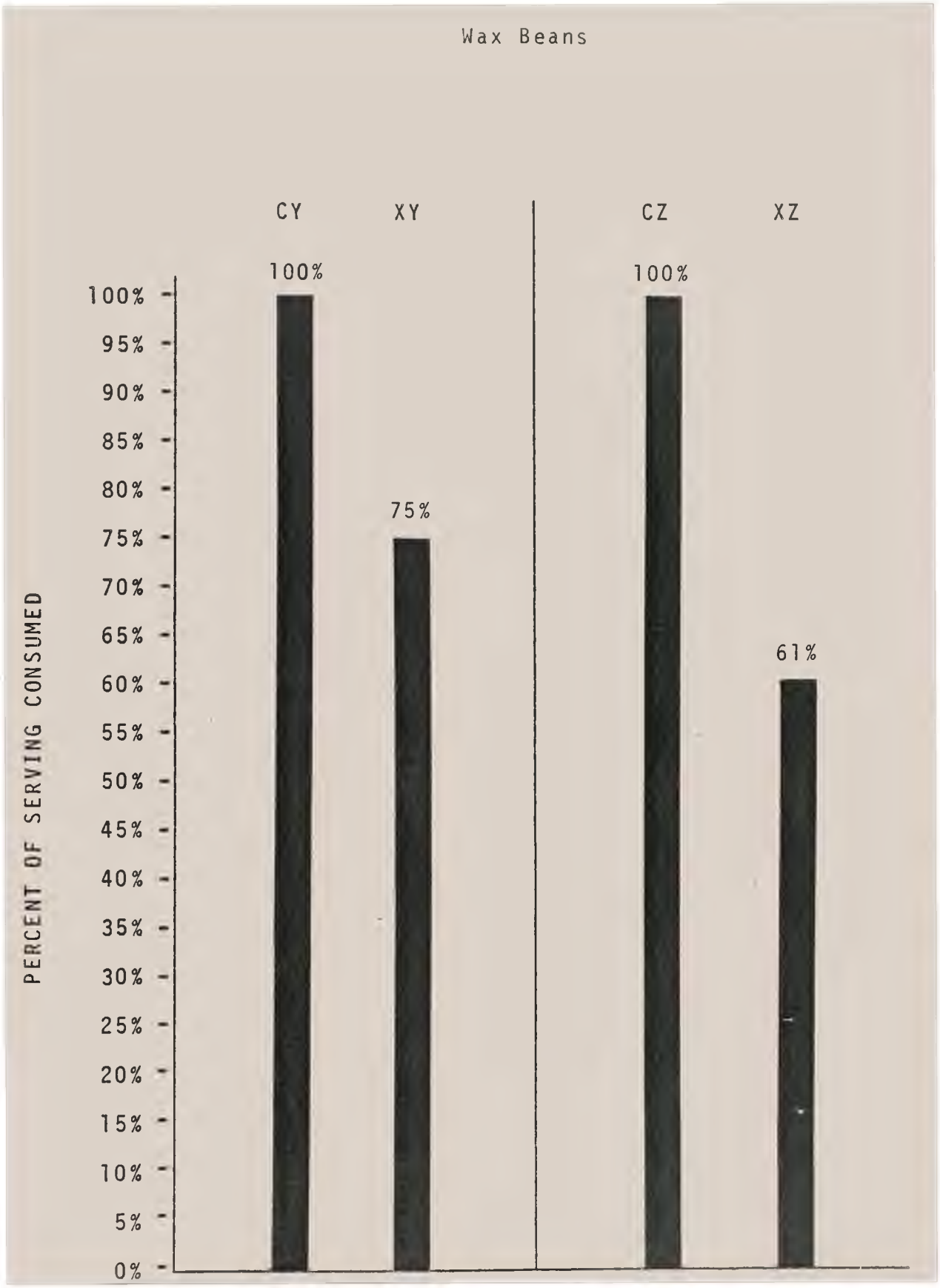

Wax Beans
CY
XY
CZ
XZ
100%
75%
100%
61%
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%

FIGURE 22

Whole Kernel Corn

FEMALE AGE	CONTROL	EXPERIMENTAL
20 - 34	CY	XY
Number of Servings	5	1
Rank of Serving	6	21
Percentage of Serving Consumed	98%	100%
Rank of Consumption	3	1
35 - 50	CZ	XZ
Number of Servings	10	5
Rank of Serving	2	9
Percentage of Serving Consumed	62%	97%
Rank of Consumption	10	4

COMMENT:

CY, XY, and XZ groups had high consumption of serving.

See Figure 23

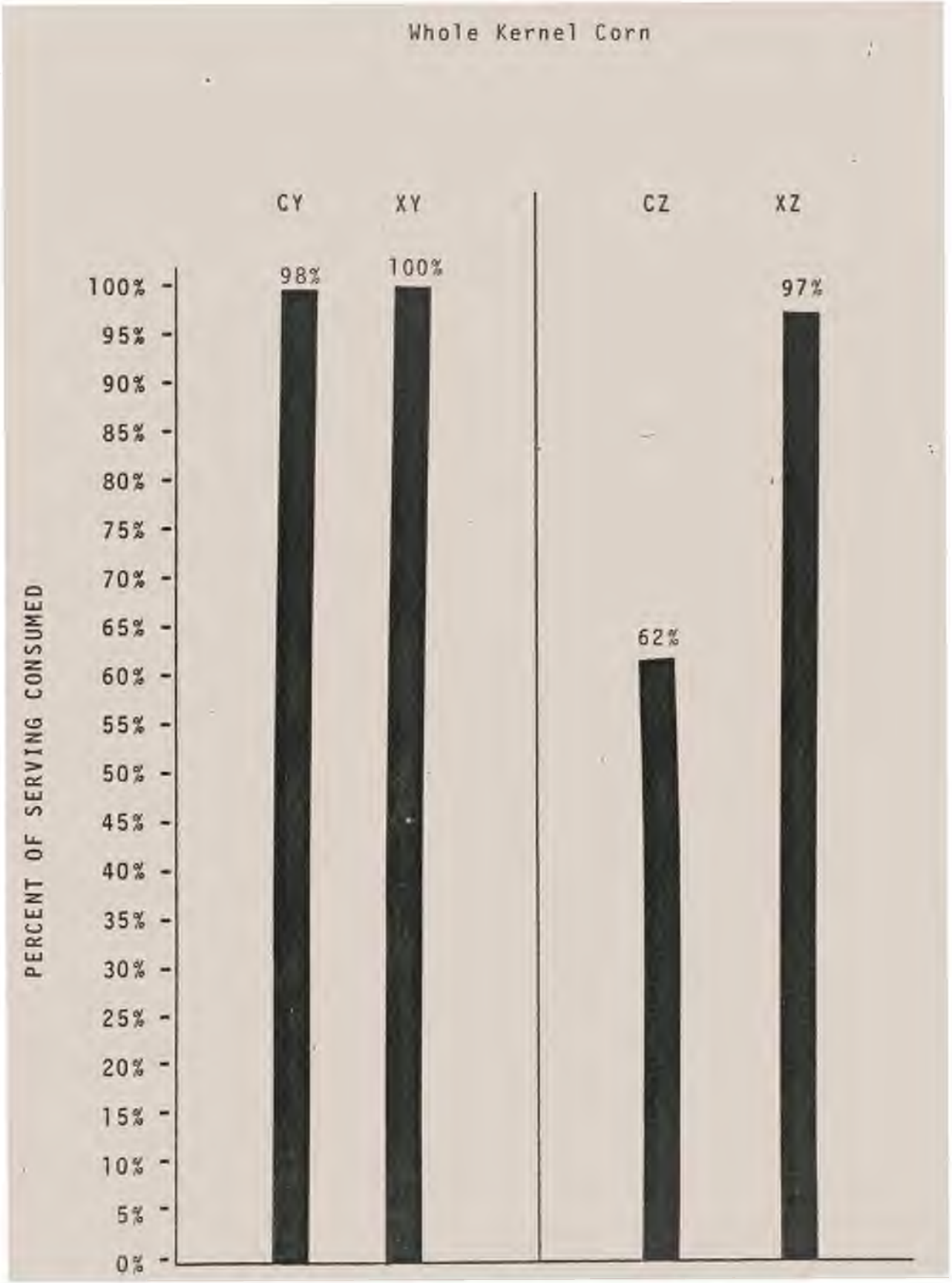

Whole Kernel Corn
CY
XY
CZ
XZ
98%
100%
62%
97%
PERCENT OF SERVING CONSUMED
100%
95%
90%
85%
80%
75%
70%
65%
60%
55%
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%

FIGURE 23

SUMMARY

The purpose of this study was to explore one technique which might be used in a hospital environment to increase plant protein consumption. The technique employed was a change in menu presentation. A study was conducted to see if forced exposure of hot vegetables served with a main dish selection increases vegetable consumption.

Data was collected from a study of 300 patient meal samples of the evening meal chosen at random in a hospital situation from patients on the General Diet. Patients whose meals were selected were in the category of females age 20 to 50. Seventy-five patient meals were selected from females age 20 to 34 and 75 patient meals were selected from females age 35 to 50 to comprise the 150 patient meals for the control group. Letter designation of these patient meals in the control group was CY for age group 20 to 34 and CZ for age group 35 to 50.

Similarly, 75 patient meals were selected from females age 20 to 34 and 75 patient meals were selected from females age 35 to 50 to comprise the 150 patient meals for the experimental group. Letter designation of these patient meals in the experimental group was XY for age group 20 to 34 and XZ for age group 35 to 50.

To evaluate individual food intake of the hot vegetables for each patient meal in the research, the vegetables were weighed in ounces before and after consumption. A written

record was kept of each weight, the difference establishing the amount. To authenticate the evaluation, a visual record of the tray served the patient was made of 1/3 of the patient meals before and after consumption by photographic color slides.

The menu presentation system used was a comparison of a control menu and an experimental menu. Both menus were of the General diet used in the hospital.

The menu used as the control was the menu normally presented to the patient in which freedom of choice was permitted for each entree, hot vegetable, salad, dessert and beverage. This was called the free choice hot vegetable menu in the research.

The menu used as the experimental menu was specially printed for the research. As presented to the patient it permitted the patient freedom of choice in plate selections which included the entree with two hot vegetables. The patient then had freedom of choice of salad, dessert and beverage. This was called the no choice hot vegetable menu in the research.

The individual age groups were not similar in the percentage of vegetables consumed. The CY group (control age 20 to 34) consumed 62.30% average whereas the XY group (experimental age 20 to 34) consumed 59.39% average, a 2.91% less consumption. This indicates a reluctance of the youth to accept what is placed before them and a willingness to consume what they order.

Conversely, the CZ group (control age 35 to 50) consumed 57.56% average whereas the XZ group (experimental age 35 to 50) consumed 68.08% average an increase in consumption of 10.52%. This indicates a willingness of the older group to consume what is placed before them and a reluctance to consume what they order.

Following are major findings on each of the vegetables served:

Asparagus with cheese sauce had 7 servings in the control group and 11 servings in the experimental group. Average consumption per serving was 60% for both groups. The CY group had one more serving than the XY group and consumed 29% more per serving. The XZ group had more than twice the number of servings of the CZ group and consumed 23% more per serving.

Broccoli with almond butter had 5 servings in the control group and 23 in the experimental group. Average consumption per serving was 73% in the control group and 80% in the experimental group. The XY group had four times the number of servings of the CY group and consumed 10% more per serving. The XZ group had five and one-half times the number of servings of the CZ group and consumed 11% more per serving.

Broccoli had 11 servings in the control group and 7 servings in the experimental group. Average consumption per serving was 81% for the control group and 76% for the experimental group. Although the control group had the highest number of servings and percentage of consumption, the

experimental group accepted the vegetable very well. Comparison of the CY to XY, and the CZ to XZ showed close similarities in the number of servings and the percentage of consumption.

Brussel sprouts had 7 servings in the control group and 7 servings in the experimental group. Average consumption of serving was 29% for the control group and 79% for the experimental group. The XY had one more serving than the CY group and consumed 57% more per serving. The XZ group had one less serving than the CZ group and consumed 371% more per serving. Although the CY and CZ groups selected brussel sprouts, the poor percentage of consumption may have been reflective of dislike of the manner of preparation, presentation, etc. The XY and XZ groups having no choice accepted the vegetable and consumption reflects appetite rather than like.

Candied sweet potatoes had 8 servings in the control group and 10 servings in the experimental group. Average consumption per serving was 56% in the control and 58% in the experimental group. The XY and XZ groups had one more serving each than the CY and CZ groups. CY consumption per serving was 60% more than XY and XZ consumption per serving was 89% more than CZ. The high consumption by the CY and XZ groups and the slightly lower consumption by the XY and CZ groups reflects an inequality in the level of acceptance. Perhaps this was due to the amount of sweetness in the sauce.

Cauliflower had 7 servings in the control group and 3 servings in the experimental group. Average consumption per serving was 86% in the control group and 28% in the experimental group. It must be noted that the XZ group had no servings and the 0% consumption is an influence in decreasing the average consumption per serving to 28%. Complete rejection of cauliflower by the XZ group may be because of preconceived dislike due to odor producing characteristics of vegetables while cooking. The XY group had one more serving than the CY group but the CY group consumed 48% more per serving. The CZ group had the most servings and consumed 90% per serving.

Creamed peas had 6 servings in the control group and 13 servings in the experimental group. Average consumption per serving was 66% in the control group and 54% in the experimental group. The XY group had twice as many servings as the CY group. However, the consumption was 54% more in the CY group than in the XY group. The XZ group had more than twice the serving of the CZ group and consumed 10% more per serving.

Creole egg plant had 1 serving in the control group and 5 servings in the experimental group. Average consumption per serving was 50% in the control group and 83% in the experimental group. The CY group had no servings and the 0% consumption is an influence in decreasing the average to 50%. The CY group had no servings but the XY group had 3 servings with 66% consumption. The XZ group had 2 servings and the CZ group had 1 serving. Consumption was 100% by both groups.

Preconceived prejudice or terminology may have been the reason for the complete rejection by the CY group and the small number of servings selected by the other groups.

French style green beans had 13 servings in the control group and 17 servings in the experimental group. Average consumption per serving was 65% in the control group and 70% in the experimental group. The CY group had 7 servings and the XY group had 12 servings. Average consumption by the CY group was 12% more than the XY group. The CZ group had 6 servings and the XZ group ahd 5 servings. Average consumption of XZ was 55% greater per serving. The CY and XY groups seemed aware of French style green beans. It is frequently offered in restaurants. It may be assumed that choice is due to familiarity.

Harvard Beets had 6 servings in the control group and 11 servings in the experimental group. Average consumption per serving was 55% for the control group and 42% for the experimental group. The XY group had twice as many servings as the CY group but the CY consumed 224% more per serving. The XZ group had 2 more servings than the CZ group but the percentage of consumption per serving was within 1%. The acceptance of harvard beets by the CY, CZ and XZ groups and the opposite reaction by the XY group indicates that the young group will consume what they order and like but will not consume what they may dislike or not ordered.

Mixed vegetables had 8 servings in the control group and 9 servings in the experimental group. Average consumption

per serving was 46% for the control group and 62% for the experimental group. There were an equal number of servings in the CY and XY groups. The XY group consumed 21% more per serving than the CY group. The XZ group had one more serving than the CZ group and consumption per serving was 42% more than the CZ group. The XY and XZ groups consumed a higher percentage than the CY and CZ groups because the vegetable was placed in front of them.

Peas and onions had 5 servings in the control group and 14 servings in the experimental group. The average consumption per serving was 93% in the control group and 62% in the experimental group. There was one more serving in the CY group than the XY group and consumption per serving of the CY group was 62% greater than the XY group. The XZ group had five times as many servings and the CZ group and the CZ consumption was 39% more than the XZ. Creamed peas and peas and onions when ordered by the CY group were very well liked. However, when presented as a no choice vegetable the consumption was over 50%. A respectable percentage of serving consumed for a no choice vegetable.

Potatoes in any form are well received starting with potatoes au gratin. The serving for baked potatoes is 7 ounces or more than twice the serving for other vegetables. With twice the amount of vegetables served to them, the XY and XZ groups again proved that they will consume what is placed before them. Boiled potatoes and buttered potatoes are similar. They are distinguished in difference only by

the addition of margarine which indicates that variations in consumptions in servings may be due to consideration of weight control by the CZ group. Mashed potatoes ranked first in selection by all groups. This popular vegetable was listed on the menu frequently. The CY and CZ groups did not order oven browned potatoes at all during the research indicating ignorance of terminology.

Sliced carrot rings had no servings in the control group and 4 servings in the experimental group. The lack of servings of sliced carrot rings by the CY and CZ groups may have been a result of its appearance daily on the luncheon menu as one of five vegetables offered. The consumption was 0% in the control group and 78% in the experimental group. The XY group had 3 servings with 56% consumption per serving and the XZ group had 1 serving with 100% consumption per serving.

Squash had 8 servings in the control group and 3 servings in the experimental group. The average consumption per serving was 65% in the control group and 31% in the experimental group. The CY group had three times as many orders with 900% more consumption per serving than the XY group. The CZ group had 5 servings and the XZ group had 2 servings with 8% more consumption per serving by the XZ group. Once again the young proved they will consume what they order and like but will not consume what they may dislike or not ordered. Perhaps the presentation of squash being in a puree form was detrimental to its eye appeal.

Stewed tomatoes had 4 servings in the control group and had 12 servings in the experimental group. Average consumption per serving was 42% for the control group and 43% for the experimental group. There were twice as many servings in the XY group as in the CY group but consumption per serving was 61% greater in the CY group. The XZ group had four times as many servings as the CZ group. Consumption per serving was 66% greater in the XZ group. The vegetable, having a saucy appearance, created a variety of responses in acceptability. These responses were anticipated by the researcher.

Wax beans had 2 servings in the control group and 5 servings in the experimental group. Average consumption per serving was 100% in the control group and 68% in the experimental group. There were twice as many orders in the XY group as in the CY group and consumption per serving was 30% higher in the CY group. The XZ group had three times the orders of the CZ group and consumption per serving was 64% higher in the CZ group. Of significance is the fact that the 20 to 34 age groups consumed 75% and the 35 to 50 age group consumed 61% of wax beans, a vegetable infrequently selected.

Whole kernel corn had 15 servings in the control group and 6 servings in the experimental group. Average consumption per serving was 80% in the control group and 90% in the experimental group. There were five times as many orders in the CY group as in the XY group. Consumption per serving was 2% greater in the XY group than the CY group. The CZ group had

twice as many orders as the XZ group and consumption per serving was 56% greater than the CZ group.

CONCLUSIONS AND RECOMMENDATIONS

The research was initiated for the purpose of discovering new techniques which might be utilized in a hospital environment to increase vegetable consumption.

Recommended was a change in menu presentation as a motivating factor. It was hypothesized that forced exposure of hot vegetables served with a main dish selection will increase vegetable consumption.

Proved was that the total average percentage of consumption of the vegetables was greater in the experimental group than in the control group by 6.6%. However, the average increase in consumption per serving of the experimental group over the control group was 38%. In the XZ group 17 vegetables had greater consumption per serving than in the CZ group. In the CY group 13 vegetables had greater consumption than in the XY group. Of the two leading groups CY and XZ, the percentage difference of serving consumed were greatest between XZ at 71% and CZ at 29%, a difference of 42% than between CY at 56% and XY at 44%, a difference of only 12%. However, the XZ group was the outstanding leader in consumption per serving with a 27% increase over CY, the next leading group. Obviously, the CY and XY group age 20 to 34 prove that they are inflexible in their attitude. The CY group consumed their choice of vegetable. The same age group XY consumed 21% less per serving of the vegetables served them as no choice. The XZ group had the highest percent of consumption

reflecting an understanding of the need to consume vegetables. However, the CZ group had the lowest percent of consumption suggesting influences that may be psychological.

It is recommended that further research is of prime importance in this area of influence. Primarily is this necessary in the mammouth fast foods industry where limited choice is the menu. Hotel dining rooms and restaurants that provide menus with numerous choices in each area of appetizer through dessert may well review the wisdom of such confusion to the guest. Hospital dietary has found it feasible to reduce the selectivity offered the patient.

Menu presentation is a viable means of increasing vegetable consumption when using plate selection as a choice. It remains a project for future study to establish that modification of attitude toward plant protein foods can be accomplished in this manner.

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APPENDICES

BAPTIST HOSPITAL OF MIAMI, INC.

DIET LIST-1

PAGE NURS. STATION DATE

ROOM BED NUMBER	BILLING NUMBER	PATIENT NAME	MEDICAL RECORD NUMBER	ATTENDING PHYSICIAN	AGE	SEX/ MAR.	DIAGNOSIS	DIET	COMMENTS

807-4

Appendix A

TOTAL PATIENT COUNTS FROM DAILY CENSUS

DAILY CENSUS / DAILY GENERAL REPORT	THREE 8 - DAY SERIES							
	1st		2nd		3rd		Total	
Daily Census All Diets	2149	100%	2296	100%	2294	100%	6739	100%
Daily Census General Diets	905	42%	1069	46%	1082	47%	3056	45%

DAILY CENSUS / DAILY GENERAL DIET By Group and Sub-Group	Distribution of Selected Research Data General Diets							
Group:	1st		2nd		3rd		Total	
Total Subjects Female Age 20 to 50	302	34%	325	30%	343	32%	970	32%
Sub-Groups								
Total Subjects Female Age 20 to 34	178	20%	181	17%	205	19%	564	19%
Total Subjects Female Age 35 to 50	124	14%	144	13%	138	13%	406	13%

JUSTIFICATION OF THE EVENING MEAL

Total Vegetable Servings

24 Day Cycle		Noon Meal 1st	2nd	3rd	Total
Female	20 - 34	112	125	134	371
Female	35 - 50	81	131	100	312
	Totals	193	256	234	683

		Evening Meal 1st	2nd	3rd	Total
Female	20 - 34	136	142	157	435
Female	35 - 50	103	153	129	385
	Totals	239	295	286	820

Evening Meal Served 137 More Vegetables

20% Increase of Vegetables Served.

Appendix D

FREE CHOICE HOT VEGETABLE MENUS

SUPPER — GENERAL

MENU 1

APPETIZERS

PINEAPPLE JUICE
VEGETARIAN VEGETABLE SOUP

FEATURED ENTREES

ROAST LEG OF VEAL w/DRESSING & GRAVY
SWISS STEAK w/TOMATO SAUCE

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
BAKED POTATO
SLICED CARROT RINGS
ASPARAGUS w/CHEESE SAUCE

SALADS

PEAR w/COTTAGE CHEESF SALAD
MARINATED CUCUMBERS

DESSERTS

DUTCH APPLE PIE
CINNAMON SPICE CAKE
GELATIN DESSERT

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK
- [ ] ICED TEA/LEMON

SUPPER — GENERAL

MENU 2

PLEASE CIRCLE ITEMS DESIRED

APPETIZERS

CRANBERRY PUNCH
CONSOMME

FEATURED ENTREES

BAKED HAM w/FRUIT SAUCE
HOT BEEF SANDWICH w/GRAVY

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
CANDIED SWEET POTATOES
CREAMED PEAS
BUTTERED CAULIFLOWER

SALADS

SLICED TOMATO SALAD
WALDORF SALAD w/CHOPPED NUTS

DESSERTS

CHOCOLATE BROWNIES
CHILLED APRICOTS
GELATIN DESSERT

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK
- [ ] ICED TEA/LEMON

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 3

PLEASE CIRCLE ITEMS DESIRED

APPETIZERS

GRAPE JUICE
CLAM CHOWDER

FEATURED ENTREES

BROILED LAKE TROUT w/LEMON WEDGE

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
BAKED POTATO w/SOUR CREAM
BUTTERED WAX BEANS
BUTTERED BROCCOLI

SALADS

LETTUCE WEDGE
FRUIT MARSHMALLOW SALAD

DESSERTS

BUTTERSCOTCH PUDDING w/WHIPPED TOPPING
PEACH HALVES
RAINBOW GELATIN

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK
- [ ] ICED TEA/LEMON

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 4

APPETIZERS

APPLE JUICE
CREAM OF CELERY SOUP

FEATURED ENTREES

BROILED PORK CHOPS w/GRAVY
BEEF STROGANOFF

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
BUTTERED POTATOES
BRUSSEL SPROUTS
BUTTERED SQUASH

SALADS

MIXED RELISH PLATE
PEACHES w/COTTAGE CHEESE

DESSERTS

PINEAPPLE PIE
CANNED PEARS
GELATIN DESSERT

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK
- [ ] ICED TEA/LEMON

FREE CHOICE HOT VEGETABLE MENUS

SUPPER — GENERAL

MENU 5

PLEASE CIRCLE ITEMS DESIRED

APPETIZERS

HAWAIIAN PUNCH
CREAM OF MUSHROOM SOUP

FEATURED ENTREES

FISHERMAN'S PLATTER
BRAISED SHORT RIBS w/GRAVY

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
POTATOES au GRATIN
BUTTERED MIXED VEGETABLES
STEWED TOMATOES

SALADS

CREAMY COLESLAW
GRAPEFRUIT AND ORANGE SALAD

DESSERTS

APPLESAUCE
BLUEBERRY CHEESE CAKE
GELATIN DESSERT

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

SUPPER — GENERAL

MENU 6

PLEASE CIRCLE ITEMS DESIRED

APPETIZERS

GRAPEFRUIT JUICE
CREAM OF POTATO SOUP

FEATURED ENTREES

BROILED BEEF PATTIE w/MUSHROOM SAUCE
SLICED TURKEY w/DRESSING AND GRAVY

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
PARSLIED BUTTERED POTATOES
FRENCH STYLE GREEN BEANS
HARVARD BEETS

SALADS

AMBROSIA SALAD
MIXED GREEN SALAD

DESSERTS

BANANA CAKE
PINEAPPLE SLICES
GELATIN DESSERT

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 7

APPETIZERS

FRENCH ONION SOUP WITH CROUTONS
FRUIT COCKTAIL

FEATURED ENTREES

SOUTHERN FRIED CHICKEN
BROILED CALVES LIVER w/ONIONS

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
OVEN BROWNED POTATOES
BROCCOLI WITH ALMOND BUTTER
CREOLE EGGPLANT

SALADS

ASPARAGUS, BEET AND EGG SALAD
PINEAPPLE CREAM CHEESE

DESSERTS

JELLY ROLL
CITRUS FRUIT CUP
GELATIN DESSERT

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 8

APPETIZERS

ORANGE JUICE
MINESTRONE SOUP

FEATURED ENTREES

BAR-B-QUED SPARERIBS
BRISKET OF BEEF

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

BOILED POTATOES
FRIED RICE
WHOLE KERNEL CORN
PEAS AND ONIONS

SALADS

MOLDED MANDARIN ORANGE SALAD
MACARONI SALAD

DESSERTS

GERMAN CHOCOLATE CAKE
ROYAL ANNE CHERRIES
GELATIN DESSERT

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- BUTTERMILK

SUPPER — GENERAL

MENU 1

APPETIZERS

PINEAPPLE JUICE
VEGETARIAN VEGETABLE SOUP

SUPPER PLATE SELECTION

ROAST LEG OF VEAL w/DRESSING AND GRAVY
MASHED POTATOES
ASPARAGUS w/CHEESE SAUCE

SWISS STEAK w/TOMATO SAUCE
BAKED POTATO
ASPARAGUS w/CHEESE SAUCE

HOT SLICED TURKEY
BAKED POTATO
SLICED CARROT RINGS

SALADS

PEAR w/COTTAGE CHEESE SALAD
MARINATED CUCUMBERS

DESSERTS

DUTCH APPLE PIE
ORANGE CAKE
GELATIN DESSERT

NO SUBSTITUTIONS

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK
- [ ] ICED TEA/LEMON

SUPPER — GENERAL

MENU 2

APPETIZERS

CRANBERRY PUNCH
CONSOMME

SUPPER PLATE SELECTIONS

BAKED HAM w/FRUIT SAUCE
CANDIED SWEET POTATOES
BUTTERED CAULIFLOWER

HOT ROAST BEEF SANDWICH w/GRAVY
MASHED POTATOES
CREAMED PEAS

HOT SLICED TURKEY
CANDIED SWEET POTATOES
CREAMED PEAS

SALADS

SLICED TOMATO SALAD
WALDORF SALAD w/CHOPPED NUTS

DESSERTS

CHOCOLATE BROWNIES
CHILLED APRICOTS
GELATIN DESSERT

NO SUBSTITUTIONS

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK
- [ ] ICED TEA/LEMON

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 3

APPETIZERS

GRAPE JUICE
CLAM CHOWDER

SUPPER PLATE SELECTIONS

BROILED LAKE TROUT w/LEMON SAUCE
BAKED POTATO w/SOUR CREAM
BUTTERED WAX BEANS

HOT SLICED TURKEY
MASHED POTATOES
BUTTERED BROCCOLI

SALADS

LETTUCE WEDGE
FRUIT MARSHMALLOW SALAD

DESSERTS

BUTTERSCOTCH PUDDING w/WHIPPED TOPPING
PEACH HALVES
RAINBOW GELATIN

NO SUBSTITUTIONS

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 4

APPETIZERS

APPLE JUICE
CREAM OF CELERY SOUP

SUPPER PLATE SELECTIONS

BROILED PORK CHOP w/GRAVY
BUTTERED POTATOES
MASHED SQUASH

BEEF STROGANOFF w/NOODLES
BRUSSEL SPROUTS

HOT SLICED TURKEY
MASHED POTATOES
BRUSSEL SPROUTS

SALADS

MIXED RELISH PLATE
PEACHES w/COTTAGE CHEESE

DESSERTS

PINEAPPLE PIE
CANNED PEARS
GELATIN DESSERT

NO SUBSTITUTIONS

DRESSINGS
- [ ] ITALIAN DRESSING
- [ ] 1000 ISLAND DRESSING
- [ ] FRENCH DRESSING
- [ ] BLUE CHEESE DRESSING

BREADS
- [ ] SALTINES
- [ ] WHITE BREAD
- [ ] WHOLE WHEAT BREAD
- [ ] RYE BREAD
- [ ] HOT ROLL
- [ ] MARGARINE

BEVERAGES
- [ ] COFFEE
- [ ] HOT TEA
- [ ] DECAFFEINATED COFFEE
- [ ] NON DAIRY CREAMER
- [ ] CHOCOLATE MILK
- [ ] WHOLE MILK
- [ ] SKIM MILK
- [ ] BUTTERMILK

SUPPER — GENERAL

MENU 5

APPETIZERS

HAWAIIAN PUNCH
CREAM OF MUSHROOM SOUP

SUPPER PLATE SELECTIONS

FISHERMAN'S PLATTER
POTATOES AU GRATIN
BUTTERED MIXED VEGETABLES

BRAISED SHORT RIBS w/GRAVY
MASHED POTATO
STEWED TOMATOES

HOT SLICED TURKEY
POTATOES AU GRATIN
STEWED TOMATOES

SALADS

FRUIT w/COTTAGE CHEESE
CREAMY COLESLAW
GRAPEFRUIT AND ORANGE SALAD

DESSERTS

APPLESAUCE
BLUEBERRY CHEESE CAKE
GELATIN DESSERT

NO SUBSTITUTIONS

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

SUPPER — GENERAL

MENU 6

APPETIZERS

GRAPEFRUIT JUICE
CREAM OF POTATO SOUP

SUPPER PLATE SELECTIONS

BROILED BEEF PATTIE w/MUSHROOM SAUCE
MASHED POTATOES
HARVARD BEETS

SLICED TURKEY w/DRESSING AND GRAVY
MASHED POTATOES
FRENCH STYLE GREEN BEANS

SALADS

AMBROSIA SALAD
MIXED GREEN SALAD

DESSERTS

BANANA CAKE
PINEAPPLE SLICES
GELATIN DESSERT

NO SUBSTITUTIONS

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 7

APPETIZERS

FRENCH ONION SOUP w/CROUTONS
FRUIT COCKTAIL

SUPPER PLATE SELECTIONS

SOUTHERN FRIED CHICKEN
MASHED POTATOES
BROCCOLI w/ALMOND BUTTER

BROILED CALVES LIVER w/ONIONS
OVEN BROWNED POTATOES
BROCCOLI w/ALMOND BUTTER

HOT SLICED TURKEY
MASHED POTATOES
CREOLE EGGPLANT

SALADS

ASPARAGUS, BEET AND EGG SALAD
PINEAPPLE CREAM CHEESE

DESSERTS

JELLY ROLL
CITRUS FRUIT CUP
GELATIN DESSERT

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

NAME _____ ROOM _____

SUPPER — GENERAL

MENU 8

APPETIZERS

ORANGE JUICE
MINESTRONE SOUP

SUPPER PLATE SELECTIONS

BAR B QUED SPARERIBS
FRIED RICE
WHOLE KERNEL CORN

BRISKET OF BEEF
BOILED POTATOES
PEAS AND ONIONS

HOT SLICED TURKEY
BOILED POTATOES
PEAS AND ONIONS

SALADS

MOLDED MANDARIN ORANGE SALAD
MACARONI SALAD

DESSERTS

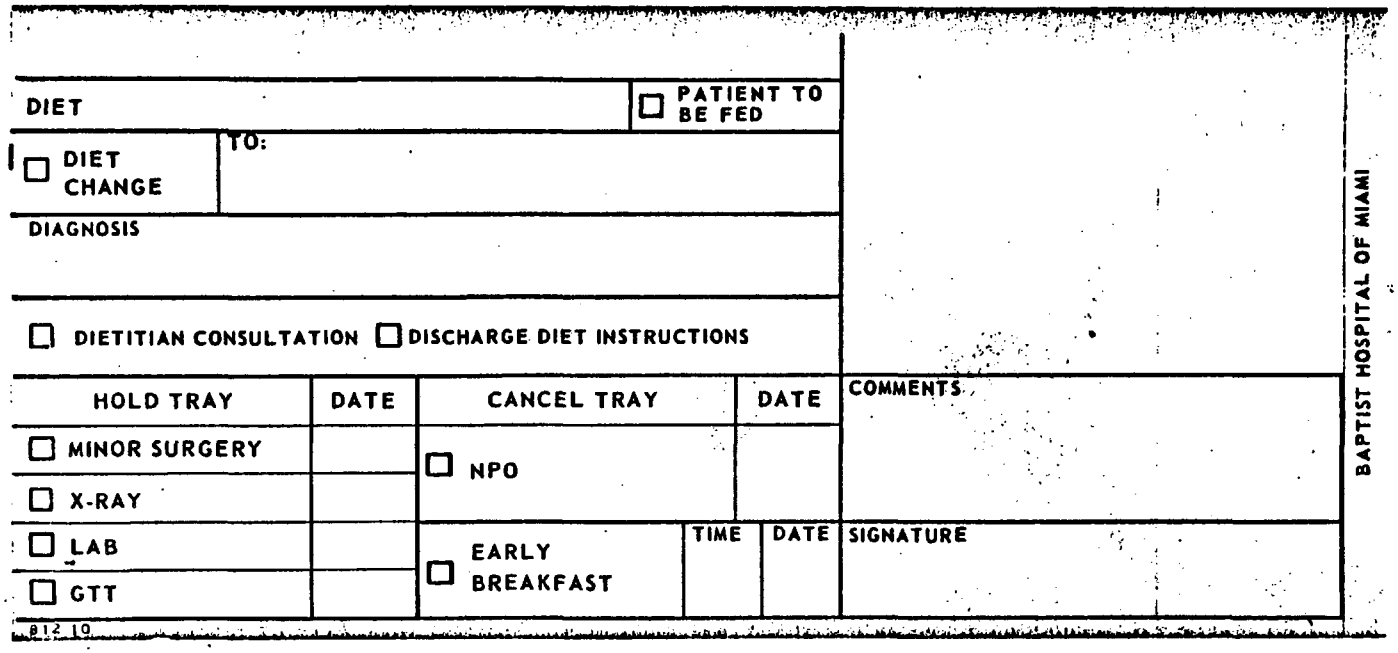
GERMAN CHOCOLATE CAKE
ROYAL ANNE CHERRIES
GELATIN DESSERT

NO SUBSTITUTIONS

DRESSINGS
- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS
- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES
- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON



DIET

☐ PATIENT TO BE FED

☐ DIET CHANGE

TO:

DIAGNOSIS

☐ DIETITIAN CONSULTATION ☐ DISCHARGE DIET INSTRUCTIONS

HOLD TRAY	DATE	CANCEL TRAY	DATE
☐ MINOR SURGERY		☐ NPO	
☐ X-RAY			
☐ LAB		☐ EARLY BREAKFAST	
☐ GTT			

COMMENTS

TIME | DATE | SIGNATURE

812 10

BAPTIST HOSPITAL OF MIAMI

DIET OFFICE

SUPPER

GENERAL

MENU 1

APPETIZERS

PINEAPPLE JUICE
VEGETARIAN VEGETABLE SOUP

FEATURED ENTREES

ROAST LEG OF VEAL w/DRESSING & GRAVY
SWISS STEAK w/TOMATO SAUCE

STANDARD ENTREES

HOT SLICED TURKEY
FRUIT PLATE w/COTTAGE CHEESE

VEGETABLES

MASHED POTATOES
BAKED POTATO
SLICED CARROT RINGS
ASPARAGUS w/CHEESE SAUCE

SALADS

PEAR w/COTTAGE CHEESE SALAD
MARINATED CUCUMBERS

DESSERTS

DUTCH APPLE PIE
CINNAMON SPICE CAKE
GELATIN DESSERT

DRESSINGS

- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS

- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES

- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

NAME _____ ROOM _____

PLACE MAT FORM

CHART OF FOOD CONSUMED

KEY

S-SERVING
R- RESIDUAL
C-CONSUMED

S-SINGLE
M-MARRIED
D-DIVORCED
W-WIDOWED

ROOM & BED Nº | AGE | CHILDREN 0 1 2 3 4 5 6 | CONTROL Nº

NAME | S·M·D·W | DATE-DAY

JUICE
S ___
R ___
C ___

VEGETABLE I
S ___
R ___
C ___

VEGETABLE II
S ___
R ___
C ___

SALAD
S ___
R ___
C ___

DESSERT I
S ___
R ___
C ___

DESSERT II
S ___
R ___
C ___

SOUP
S ___
R ___
C ___

ENTREE I
S ___
R ___
C ___

ENTREE II
S ___
R ___
C ___

BEVERAGE I
S ___
R ___
C ___

BEVERAGE II
S ___
R ___
C ___

BREAD
S ___
R ___
C ___

ROLL
S ___
R ___
C ___

CRACKER
S ___
R ___
C ___

MARGARINE I
S ___
R ___
C ___

II
S ___
R ___
C ___

COMMENT:

LOG OF PATIENT MEAL SAMPLES

Alpha-Numeric Code Number	Menu Number	Patient Name	Room Number	Age	Marital Status	Number of Children

STANDARD MEASURES OF BAPTIST HOSPITAL FOOD SERVICE DEPARTMENT

	EDIBLE PORTIONS OUNCES
VEGETABLES	
Asparagus Spears w/Cheese Sauce	3
Broccoli w/Almond Butter	3
Broccoli	3
Brussel Sprouts	3
Candied Sweet Potatoes	3
Cauliflower	3
Cream Peas	3
Creole Egg Plant	3
French Style Green Beans	3
Harvard Beets	3
Mixed Vegetables	3
Peas and Onions	3
Potatoes:	
Au Gratin	3
Baked	7
Boiled	3
Buttered	3
Mashed	3
Oven Browned	3
Sliced Carrot Rings	3
Squash	3
Stewed Tomatoes	3
Wax Beans	3
Whole Kernel Corn	3

	EDIBLE PORTIONS OUNCES
ENTREES	
Baked Ham w/Fruit Sauce	6
Barbecued Spare Ribs	8-1/2
Beef Stroganoff w/Noodles	10
Braised Short Ribs w/Gravy	10-1/2
Brisket of Beef	3
Broiled Beef Pattie w/Mushroom Sauce	6
Broiled Calves Liver w/Onions	5-1/2
Broiled Lake Trout w/Lemon Wedge	5
Broiled Pork Chops w/Gravy	4-1/2
Fisherman's Platter	5-1/2
Fruit Plate w/Cottage Cheese	12-1/2
Hot Roast Beef Sandwich w/Gravy	5
Hot Sliced Turkey	4
Roast Leg of Veal w/Dressing and Gravy	8
Slice Turkey w/Dressing and Gravy	12-1/2
Southern Fried Chicken	7
Swiss Steak w/Tomato Sauce	6
SOUPS	
Clam Chowder	6
Consumme	6
Cream of Celery	6
Cream of Mushroom	6
Cream of Potato	7
French Onion	6
Minestrone	6
Vegetarian Vegetable	7

	EDIBLE PORTIONS OUNCES
SALADS	
Ambrosia	3-1/2
Asparagus Beet and Egg	2-1/2
Creamy Cole Slaw	2
Fruit Marshmallow	4
Fruit w/Cottage Cheese	5
Grapefruit and Orange	5-1/2
Lettuce Wedge	3-1/2
Macaroni	3-1/2
Marinated Cucumbers	3
Mixed Greens	2
Mixed Relish Plate	2
Molded Mandarin Orange	4
Peach w/Cottage Cheese	5
Pear w/Cottage Cheese	5
Pineapple w/Cream Cheese	4
Sliced Tomato	1-1/2
Waldorf Salad w/Chopped Nuts	3
DESSERT	
Applesauce	3-1/2
Banana Cake	3
Blueberry Cheese Cake (Strawberry, Cherry)	3
Butterscotch Pudding	3
Canned Pears	3
Chilled Apricots	2
Chocolate Brownies	3
Citrus Fruit Cup	3-1/2

	EDIBLE PORTIONS OUNCES
DESSERT (continued)	
Dutch Apple Pie	4
Gelatin	2-1/2
German Chocolate Cake	2
Jelly Roll	2
Orange Cake (Cinnamon Spice Cake)	3-1/2
Peach Halves	4-1/2
Pineapple Pie	4
Pineapple Slices	2
Royal Ann Cherries	3
Fruit Cocktail	3
The Following Were Individually Packaged at Standard Weights	
Fruit Juices	4
All Milk (Carton)	8
Salad Dressing	1/2
Non-Dairy Creamer	1/2
Margarine	1/4
Saltines	1
Breads and Rolls	1
BEVERAGES	
Coffee	6
Decaffeinated Coffee	6
Hot Tea	6
Iced Tea	8

DINNER (LUNCHEON) GENERAL

MENU 1

APPETIZERS

SPLIT PEA SOUP
TOMATO JUICE

FEATURED ENTREES

TUNA SALAD SANDWICH
LASAGNA

STANDARD ENTREES

BAKED CHICKEN
FRUIT PLATE w/COTTAGE CHEESE
FRENCH FRIED SHRIMP

SALADS

TOSSED VEGETABLE SALAd
MOLDED FRUIT SALAD
CREAMY COLESLAW

VEGETABLES

MASHED POTATOES
FRENCH FRIED POTATOES
SPINACH
BUTTERED NEW PEAS
WHOLE BABY CARROTS

DESSERTS

CHOCOLATE CREAM PIE
FRESH FRUIT
ICE CREAM

DRESSINGS

- ☐ ITALIAN DRESSING
- ☐ 1000 ISLAND DRESSING
- ☐ FRENCH DRESSING
- ☐ BLUE CHEESE DRESSING

BREADS

- ☐ SALTINES
- ☐ WHITE BREAD
- ☐ WHOLE WHEAT BREAD
- ☐ RYE BREAD
- ☐ HOT ROLL
- ☐ MARGARINE

BEVERAGES

- ☐ COFFEE
- ☐ HOT TEA
- ☐ DECAFFEINATED COFFEE
- ☐ NON DAIRY CREAMER
- ☐ CHOCOLATE MILK
- ☐ WHOLE MILK
- ☐ SKIM MILK
- ☐ BUTTERMILK
- ☐ ICED TEA/LEMON

NAME _____ ROOM _____