CONFERENCE ON AGING AND THE AGED

April 19-20, 1963

Iowa Aged Within the National Scene
Mrs. Eleanor Carris, Department of Social Welfare, Des Moines

The Role of the Home Economist in Relation to Aging
Dr. Helen Judy Bond, Professor Emeritus, Columbia University

Physical and Psychological Adequacy
Edna Nicholson, Executive Director, Institute of Medicine, Chicago, Illinois

Nutritional Aspects of Aging
Dr. Pearl Swanson, Professor of Food and Nutrition, Iowa State University

Social and Community Aspects of Aging
Dr. Joseph Britton, Professor of Child Development and Family Relations, Pennsylvania State University

This Conference was an outgrowth of the Workshop on Aging sponsored by the American Home Economics Association at Purdue University, April 30, 1962. Members of the Iowa Conference Committee were: Glenn Hawkes, Head, Department of Child Development; Ercel Eppright, Assistant Dean, College of Home Economics; Julia Faltinson, Assistant Dean, College of Home Economics; Louise Rosenfeld, Assistant Extension Director, Cooperative Extension Service in Agriculture and Home Economics, and Helen R. Le Baron, Dean of the College of Home Economics (ex-officio member of Committee).

IOWA AGED WITHIN THE NATIONAL SCENE by Mrs. Eleanor Carris,

Department of Social Welfare, Des Moines.

Iowa has a higher percentage of older people than any other state. State 11.9 percent; national 9.2 percent. In 1960, we made a survey in Iowa. The sample was set up by the University Research Team from tax lists in 13 counties. Volunteers were trained to do the interviewing. The interview took approximately two hours and, in some instances, the time was broken. Older people get tired and two hours is a long time. We asked many questions. I'll try to talk about the most revealing answers.

Where born: Sixty-five percent born in Iowa; 26 percent of them in the same county where they are now living. This group is not in the mobile group. This is one stereotype that seems to still be a true picture. As a group they stay put. Less than 10 percent born outside of the country; less than 19 percent have moved to present place of living since they were 59.

Education: More than one-half have completed 8 grades or more. National average is one-third.

Income: Fifty-five percent of women and 36 percent of the men have incomes of less than $2,000. Only two percent had incomes of more than $10,000. This figure for women may be questioned because we do not know how many of them might have husbands with higher incomes.

Retirement: We work longer in Iowa. Thirty-five percent of all persons, men and women, are still employed full or part time. (Fifty-five percent of the men; 22 percent of the women.) There were few who planned to change work and only 14 percent of the men and 10 percent of the women planned to retire.

Marital Status: Three out of 4 men are married and living with their wives. Only 18 percent are widowers. Only 37 percent of women are widows.

Living Arrangements: Eighty-three percent of men and 78 percent of women live in their own homes. Four percent of men live with children; seven percent of women live with children. Twenty percent of men and 35 percent of women live alone.

Religious Affiliations: About 80 percent of this group are Protestants. (More Methodists than any other denomination--28 percent.) Few stated that they had no religious affiliation; a few more men than women.

Health and Age: Most of them said their health is good. Poor about 12 percent; fair, 35 percent; good and excellent, 53 percent. It seems to be better in the urban areas. Thirty-six percent did report some major health difficulties. In this area, age made a difference. Breaking point, about 74.

"The funniest things are happening in the world today. Risers in steps are so much higher and steeper than they used to be. They have put a fair sized hill between my house and the bus line. This must have happened when they built the sidewalk. I learned not to run for buses anymore. They start so much quicker than they used to. Have you noticed the small print they use everywhere. I had to back clear out of a telephone booth to read the directions on the coin box. It's silly for me to wear glasses but I have to unless someone reads and they talk so low and mumble. Met an old sorority sister of mine. She had changed so much she didn't know me. Thinking of poor old Grace as I looked in the mirror. Say, they don't use as good glass in mirrors as they did a few years ago."

Women reported they need help with yard work and shoveling snow, transportation for shopping, house repairs, cleaning, etc.

Health Care: One-half had some kind of health care during the year. Concern was expressed over lack of doctors, etc.

Attitude About Self: How do we feel about ourselves?

Life still busy and useful	79%	Feel miserable most of time	7%
Never felt better	22%	Life full of worry	6%
Best years of my life	21%	Sometimes I think there is no point in living	4%
Most useful period	16%	I don't care whether I go on living	2.5%

Attitude Toward Work - Employed:

Do you like your work?		Is retirement good?	
Very much	68%	Good	35%
Fairly well	28%	Part good - part bad	35%
Not much	3%	All bad	23%
Not at all	1%	Don't know	7%

Are you able to work?

	Yes	Not sure	No
Employed	22%	3%	69%
Retired	5%	5%	81%

Most said working ability had decreased: 67 percent indicated decreased strength; 57 percent decreased endurance; 10 percent did not have as much patience; 32 percent had lost some speed.

Housing: What about your present housing?

Very good, 52 percent; fair, 24 percent; just satisfactory, 15 percent; poor, 2 percent; very poor, 5 percent. It pleased me that the President's message suggested a study of needs of older people who own homes that need modernization, rehabilitation or sale. People like to live in their own homes.

There are things that are not satisfactory: too many stairs, too big to care for, bathtub hard to clean, too far from grocery store, too far from church, poor transportation, too noisy, too many dogs and children, too lonely, afraid at night, like someone close (in same house but not living with me), house drafty and hard to heat.

Still, 58 percent want to live alone in apartments or homes; 26 percent in congregate living (apartment with some help); 9 percent in boarding houses; 16 percent in nursing home if sick; 14 percent with children, and 51 percent hope they never have to live with younger generation.

Services Needed: Homemaker and home nursing. Someone to prepare good meals. Assured medical care. Friendly visitors for those alone. Adult education programs. More opportunity to do worthwhile things. A family adoption program for those who have no relatives. More church programs.

Whose business is this? What is your mental picture when I say an old man? Stereotyped: Decrepit, not too neat or prissy, senile to some extent, cross and stubborn, sick, interested only in himself? Is this true of the older people you know or of a person you know. No one thinks of himself. He always picks out the things that are not good about others.

This is a new group. All of us are or will be part of it. At a New York seminar, where we worked a week on one aspect of work with aging, the last speaker--a psychiatrist--said, "Remember that what we plan will be obsolete ten years from now." We are only beginning to serve. The life span may easily be expanded to 100 by the year 2,000. Our big job is to help people see this and forget the feelings they have about aging. We all must do it. Let us hope that we cannot only help others solve their present problems, but that we can work to avoid the same problems for those who are only beginning the process of aging.

Only as we are willing to recognize problems can we start to solve them. We have concentrated on the sick. This is fine. They need our immediate attention. Now let's get to work on the other aspects of aging as well.

THE ROLE OF THE HOME ECONOMIST IN RELATION TO AGING by Dr. Helen Judy Bond, Professor Emeritus, Columbia University.

Opportunities and Responsibilities

In the last decade a new word has been added to our vocabulary although it was in the original dictionary of Daniel Webster's day. It represents a phenomenon as old as life itself. To many, it is a word that brings fear, rebellion and foolish non-acceptance instead of pride, serenity and graceful acceptance. This simple five-letter word is AGING.

The man in the factory who was approaching his 65th year had the right idea. He was asked the question by a fellow workman, "Don't you dread the approach of old age?" His reply was "When I think of the alternative, I welcome it."

At a luncheon of great writers in London many years ago, Margaret Fuller drew herself up with great affectation and said, "I accept the universe." Thomas Carlyle, who sat across the table, said "Ga'd, you'd better." No, this period for me need not be softened by such terms as "senior citizen," "later years," "age of maturity" or even "autumn of life" as Walter Reuther called it in a television appearance. We will accept either the word aging or the scientific terms gerentology and geriatrics.

Aging is a natural part of any organism whether its span of life is measured by seconds, a season, or by three-score-years-and-ten now rapidly becoming four-score-years-and-ten.

Intelligent human beings should accept each period of life, prepare for it, live with it and make every effort to enjoy it to the full.

I am in the period under discussion. I am not going to use any of my energy rebelling against it but I will try to expend my energy making every effort to enjoy it in every way becoming to a woman of my advanced years. And it even has a challenge in it for me. Maybe I was just born a crusader but if there is anything I can do to improve the image of the aging, "Ye gad, I'm going to do it."

In one of my favorite poems by William Wordsworth, "Ode to Immortality," the author gives a word picture of the seven stages of man from infancy to old age. He speaks of the infant as coming into the world "trailing clouds of glory after him." It does seem as we look at a newborn baby never very beautiful, never very responsive, there is always an aura of the infinite about it. The mystery of life never seems as profound as at this moment. Wordsworth says of the second stage, which he calls "the child," that "he sees at his feet some little plan or chart" - "the little actor who cons a part." Of youth, he says "always impressed with thy soul's immensity."

In these three stages, we see in infancy - immortality, the wonder of things, the miracle of life; in childhood - a plan ahead; in youth, the challenge of all that lies before, the vision of life stretched out before him. It is the time to dream, to plan and prepare for the realities of life ahead.

Then come the periods of active achievement, the fulfillment of a role, the sharing of life intimately with another person, the rearing of a family, service to a community, a nation and the world. Each day, in all these periods of life, one is 24 hours older. As the poet says, "Grow old along with me, the best is yet to be." That is until age 65.

But Wordsworth describes the period of old age as that of "the philosophic mind." In most countries of the world, the older person is sought out for the wisdom which he has acquired through the years. It is a time when great respect is given to him because of his valued experience. This should not be thought of as a period of decline and distress. To be sure, there will be problems the same as in any other period of life. We know everything will not be "coming up rosy." But we can be sure we will see more of the rosy glow if our perspective is tempered with optimism instead of pessimism.

It should be a period for which we have judiciously planned and a time of great satisfaction. If, through the years, effort has been made to see that work has been well done, if an attempt has been made to reason out the meaning of life around us, if we have tried to understand people and their motives, if our philosophy has been to give and not get, if the privilege of seeing children reach adulthood, and grandchildren come to enrich life or nieces and nephews, this final period of life should give us time to reflect on the what has been, what is and what is more important--what meaning this has for the future. George Washington, in a final address to the nation, said "We should only look back in order to understand the present and to plan for the future."

Truly this should be a period of triumph. The White House Conference on Aging brought forth a phrase that should never become trite but should be emblazoned on all our efforts--"Aging with a future."

Much as we dislike (and we could use a stronger verb) the term "New Frontier," we do feel that in every professional group, in every state, city and hamlet concerted effort should be made to gain a new understanding of the privileges of aging and not just the depreciations of this period; the challenges it affords and not just the crises that we must face; the intelligent planning it requires and not just the unintelligent postponement of the realities which must be confronted.

A part of the responsibility of this positive approach is definitely that of each individual, of each family, and of society in general. Each professional group, like those who are represented on the program today, and others not with us, have a tremendous contribution to make if added years can be put on the credit side of the ledger of life or as a major achievement of this period of man's history.

The archives of the nation and of every state are filled with facts and figures in regard to the persons over 65 years of age in this country. We know how many in each age group. We know where they live, we know something of how they live, we have some information in regard to their health status, we know something about their wealth or lack of it, but we know far too little about their feelings, their desires and their real needs and innermost problems. We have definitely reached the "so-what" period.

The period of real work and endeavor is at hand. Truly, opportunity is knocking at our door. The efforts we as individuals and professional workers put into this endeavor have a unique end product--that is if we think selfishly. We are working not only for others, but for ourselves. It is, however, like the income tax we feel we are paying to the government when, in reality, we are serving ourselves as citizens and our homeland. Yes, we are working for human betterment but we are working for ourselves as well.

Here are four ways in which home economists can work:

1. Through our representative organizations--American Home Economics Association, American Dietetics Association, American Vocational Association and their allied state associations through Extension, Social Welfare and business groups.

2. Through our own professional work in our day-to-day job.

3. Through direct person-to-person relationship in our own communities.

4. Through cooperation with other professional groups or with individual representatives of them in our own communities.

Perhaps I should add a fifth--with ourselves--as we day-by-day approach this period.

The very nature of our field of education which encompasses housing, equipment, management, economics, health, food and nutrition, clothing, child development and family relationships puts us in a unique position. These are important aspects of daily living at any age level.

The leadership which the American Home Economics Association has taken shows that some within the profession early realized the strategic role we play. This realization is verified by the fact that AHEA was one of the first professional groups to have representation on the Committee of Aging of the National Welfare Assembly. From 1959 through 1961, I had the privilege of being your representative. At the first meeting I attended, eight professional groups were represented. At the last meeting, there were 115 professional and work groups in attendance.

It was at this meeting the Committee became a separate organization now called the National Council on Aging. At the January meeting of our Executive Board we became a sponsoring member of the Council. In 1960, when Mr. Bond and I were on an International Cooperation Administration project in Columbia, South America, I received a letter from Mildred Horton asking me to take the chairmanship of a Committee on Aging in the American Home Economics Association.

The committee went into action immediately on my return--with a threefold purpose in mind:

1. To work closely with the Advisory Committee of the White House Conference and particularly with our representative, Dr. Thelma Porter.

2. To help develop an awareness on the part of the members of the Association, not only as to what was being done at the state and national level but to acquaint them through the pages of our Journal with facts, problems and trends in respect to aging. An attempt was made to alert the membership as to the need for their participation in state and local committees. There was great variation as to our contribution in the activities leading up to state conferences.

3. To contact governors, state councils and offer them assistance and to make them aware of the contributions home economists can make.

As the time for the White House Conference approached, and we were able to secure the names of delegates, it was decided we have a pre- and post-conference at Headquarters. At the final meeting, Louise Rosenfeld suggested that AHEA sponsor a workshop. This suggestion fell on fertile ground. The Association approved and the workshop became a reality the week of April 29th, 1962, at Purdue University.

The purposes were defined as follows:

1. To clarify the role of Home Economics in regard to aging.

2. To help appropriate groups of the Association develop programs, ideas and resources in regard to aging.

3. To develop a philosophy that determines the Association's course of action in relation to education and service in programs for the aging.

The third of these objectives was written and published in the proceedings of the workshop and the October Journal of Home Economics.

We can thank Dr. Hawkes and the splendid contribution he made to this undertaking. The subject matter and professional sections considered their responsibilities and, with the help of state presidents or co-ordinators and

the Washington staff, a "Dear Jane" letter came out with some recommendations for the American Home Economics Association, state associations, professional and subject matter sections, you and me.

In the program of work and the resolutions of the 1962 meeting, directives were given to the state associations and members to make every effort to study the proceedings and to formulate a forceful and active program in every state. We have attended a number of state meetings this year and it is most gratifying to see the efforts that are being made to strengthen the contribution of home economists through the state association, through programs of education in our colleges, universities and the schools, through participation with other groups and through individual effort.

Your American Home Economics Association committee is continuing over-all activities and it is hoped that these will be of help to state associations and to individual members.

1. A program on aging is being planned for the meeting in Kansas City.

2. A new folder, or we might say "hot release," has just come from the press. (See attached Exhibit III.)

3. A sub-committee is working on a guide which is designed to give content for programs on aging.

4. The Journal will continue to report local and state activities, projects and research which may be helpful to others. It is hoped that you will make these known for they may contain just the spark other state associations and individuals need to undertake, services or research.

It is encouraging to read some of the monthly publications which continue to come from State Councils on Aging. The day before we left home, we received one from Hawaii that gave the details of legislation before the state which, if passed, would write into law a permanent Council and provide a paid worker in every county. This person would devote full time to service to the aging.

With a husband who is a chemist, we read journals in this field. Last year two issues devoted much space to research related to the aging process. With a brother who is chief of surgery in two hospitals and head of surgery in a medical school, we find his journals devoting more and more space to geriatrics. A symposium on aging was held at the University in March. It was expected that fifty doctors would attend. Much to their surprise, 300 physicians attended and stayed throughout the day.

There is no doubt that much is being done on many fronts. Real leadership is being exerted. But, in the final analysis, if existing problems are solved or distress lessened, if new and constructive programs of a preventative

nature are instigated, these must be carried on where people live, where our agencies, institutions and professional groups work.

A megaphone is a useful piece of equipment when it is necessary to amplify sound, get a public aroused, interest stimulated, action started, individuals and groups moving, but when there is work to be done, a megaphone is an encumbrance. Two hands and a clear head, unaffected by the din around us, are needed.

The older generation is living in local communities. Their problems are better known to neighbors, doctors, visiting nurses, teachers, ministers, priests, the grocery man or delivery boy, the postman, the banker or others we could name. It is at the so-called grass level we need to work. It is here we need to secure significant facts. It is here we need to develop our programs for better housing, better nutrition, better clothing, better use of income, better use of leisure time, better services in general.

As we enumerate these needs does it not sound like a definition of what is involved in the field of Home Economics? If we are truly "Family Life" educators, and worthy of the name, this is the time to demonstrate this in every level of education, in every group within the profession and in every community across this land.

As we ask ourselves the question, "What is the role of home economics in programs of aging?" our reply would be "It is the stellar role." We should and can be the leading ladies. If we are not, it is because we ourselves have not aggressively moved into a ready-made situation crying out for the services we have the ability to give. If we do not have the ability, let us see that we achieve it and that every student preparing for work in home economics receives it in her educational preparation.

There seems to be an epidemic of generalizations going on in Home Economics. We secured some of these from your colleague, Dr. Mattie Pattison, with the hope they could be utilized in this presentation. But they are in a formative state and are being discussed and refined by various groups. We have urged that aging be included in all these deliberations. So, I am going to present some assumptions, hopes or maybe just some ramblings of a matriarch in the field.

1. If family life education is truly a major responsibility of our profession, old age should be as much a part of our program as infancy, childhood, adolescence, marriage, parenthood and middle age.

2. If we believe that each period of life is based on and affected by the preceding one, education at each level is necessary in order to be prepared for the ones to follow. (Note: Perhaps if our programs of nutrition at each stage were as complete and judiciously planned as that of the infant, chronic diseases would have less chance of creating major problems in old age.)

3. Home economists have within their grasp more opportunity than any other group to make a preventive approach to problems of old age. (Note: In many homes, junior high school youngsters are living with one grandparent. What a wonderful opportunity this affords for education. Older persons are living, oftentimes alone, near our schools. Why not make services to them a part of class activities?)

4. Preparation for the portion of life called aging should be every individual's and every family's responsibility.

5. The community, the state and the nation should supplement, not supplant, individual and family effort to meet and solve problems. Personal initiative built this country; let that continue to be our aim.

6. Home economists should seriously evaluate our present body of knowledge in each of our subject matter areas and determine its usefulness in meeting the problems of today's older citizens, point out the information needed to fill the gaps, set up the research needed to find solutions and determine the best methods of translating this into the solution of today's and tomorrow's problems.

7. The need for interdepartmental and cooperative professional exploration and research was never more apparent than in the field of gerontology. (Note: Home economics has grown out of many bodies of knowledge--chemistry, physics, economics, sociology, psychology, architecture et cetera, and we certainly should be the first to recognize the need for cooperative endeavor. Let us invite and contribute to cooperative research wherever it is needed. Let's not wait to be asked.

8. This meeting illustrates my next point. Every effort should be made on every level - national, state and community - to bring together representatives of all professional groups, institutions and agencies as well as members of the older age groups to jointly consider problems, services, needed research and perhaps laws or changes in laws to help make "aging with a future" a promising reality.

9. Let each of us look well into ourselves and see how we, personally, can relate acceptably to older persons, understand them, bear with them, help them and then quietly pray that someone will do the same for us.

10. The last point may be a dream or a nightmare. We know it is a deep-seated desire. The longer we work in the field of home economics, the more we work with other groups, the more closely we become involved in local, state and national government, the more we are convinced that what this country needs is not a good 5¢ cigar but a Department of the Family with a Secretary in the President's cabinet

and a like set up in every state. (Note: Let us stop "splintering" the family into age groups--work groups, economic and social groups. "Togetherness" is a thoroughly good word but actions speak louder than words and a democratic family is not a divided one.

On the flyleaf of Counts' and Chapman's book entitled "Principles of Education," we find a word picture of a school room situation. "Greeting his pupils, the master asked 'What would you learn of me?' And the reply came: 'How shall we care for our bodies? How shall we rear our children? How shall we work together? How shall we play? For what ends shall we live?' And the teacher pondered these words, and sorrow was in his heart, for his own learning touched none of these."

Much of home economics is implied in the answers to these questions. May the students who each year join the ranks of our profession be able to say: "And the home economist pondered these words and joy was in her heart for her own learning encompassed all of these things." As leaders in home economics--this is our task.

PHYSICAL AND PSYCHOLOGICAL ADEQUACY by Edna Nicholson, Executive Director, Institute of Medicine, Chicago, Illinois.

Note: The full text of this paper appears in the Proceedings of the American Home Economics Association Workshop on Aging, Purdue University, April 30, 1962, and in Volume 54, No. 8, October 1962 issue of the Journal of Home Economics, pp 700 - 705. Significant excerpts are presented here.

Adequacy of Older People

"I should like to begin by expressing my admiration for those who outlined the subject matter for this workshop and focused it upon the adequacy of older people....."

"Adequacy implies adaptation to circumstances and, because circumstances are constantly changing, the process of adaptation must go on all the time. This adjustment of the individual to his surroundings and to the demands they make upon him is affected both by changes occurring in the individual and by the changes that occur in his surroundings. Similarly, if we want to see better adaptation, or a greater degree of adequacy in any particular set of circumstances, we may direct our efforts either to improving the individual's ability, or to altering the circumstances, or both. In this connection, I should like to emphasize, also, that, when we are concerned about the inadequacy of an individual, it is important that we distinguish clearly between

1) an unsatisfactory response on the part of the individual to normal circumstances; and
2) the perfectly normal response of the individual to highly abnormal and unsatisfactory circumstances.

Only after we have clarified this point, can we know whether our efforts to improve the situation should be directed primarily to the individual and his behavior or to modifying the circumstances to which we are expecting him to adjust. It may seem unnecessary to stress this point, but I can assure you that it is not possible to overemphasize its importance."

"....I should like to list three or four more basic facts that can help to point the way to a better understanding of the problems with which we are concerned, and the sources from which they arise...."

1. "The subjects of our concern are people. We are the same human beings after the age of 65 as we were before....Our behavior is motivated by the same basic forces as in earlier years and the extent to which we can adjust satisfactorily to the world in which we live is determined by the same fundamental factors."

2. "Human behavior, the ways in which we adjust to the world around us, and the extent to which we may be regarded as 'adequate,' are the final results of the inter-action of a number of factors. These include (a) our emotions and our scales of values and interests as they have been developed through training and experience, (b) our mental ability; and (c) our physical ability."

".....Again, we may emphasize that our adequacy in any given set of circumstances depends upon our emotions, our scales of interest and values, our mental ability and our physical capacity, and that the extent to which we achieve a good adjustment depends first of all upon whether we want to adjust and whether we think it is worth doing. When the answer to these is 'yes,' then we draw upon our mental, physical and other resources to accomplish it."

3. "All people at all ages need a sense of their own value and importance to others and they seek it as they do air and water. ..... This is one of the laws of life and unless we are receiving reasonable recognition of our value to others in return for wholesome contributions on our part, we inevitably try other methods to gain it. This type of reaction is seen perhaps more often among older people because older people more often are deprived of the normal opportunities for making worthwhile contributions and gaining their sense of importance in the world in more acceptable ways....."

4. "In dealing with any human beings, including older people, it is our basic concepts and attitudes that are important - not necessarily the words we use. .....Intelligent people of any age cannot be fooled for very long by empty and untrue assurances of the kind older people receive far too often....."

"I do not believe that we are going to get very far in solving the real problems of aging until all of us accept the fact and really believe that it is normal to grow old; that there are many good things about it; that, as we give up some of the capacities we had in the earlier years, we are also giving up some of the problems, and that, as we grow older, we can gain new qualities of equal or greater value than the ones we are giving up. Very few people really believe this, now. We have only to listen to ourselves and to others avoiding the use of the word 'old.' ....."

5. "We need to recognize the distinction between age and illness. There has been almost a universal tendency to consider advanced age and infirmity as synonymous, and it is quite possible that that is the real source of our revulsion against the idea of being old."

".....It is highly important that there be wide recognition of the facts that (a) it is not actually age that we fear, but the infirmity that we associate with it, and (b) that, although nothing can be

done to change our age, a great deal can be done to prevent and relieve illness and disability."

What Is the Present Status of Physical and Psychological Adequacy Among Older People?

"The present status of physical and psychological adequacy among older people is not nearly as good as it should be, but it is far better than frequently is assumed."

"About 80 percent of all persons in the United States who are 65 years of age and older are going about their business neither requesting nor needing care of any kind. They are entirely adequate to the task of caring for themselves. Considerably less than 10 percent need or want care in nursing homes, homes for the aged, or other institutional facilities."

"Nevertheless, far too many older people are suffering from conditions that handicap them in greater or less degree and that could have been prevented, or could be greatly relieved, with proper health supervision and medical care. The diseases that are the chief causes of illness and disability among older people are predominantly the so-called chronic diseases....."

"In the control of the chronic diseases, little can be accomplished unless the patient is able and willing to change his habits and living patterns. This is where the patient's emotional adjustment and his scale of interests and values are the determining factors. And this is the reason for some of the emphasis we have placed previously upon factors that determine human behavior ....."

What Can We Do To Improve Physical and Psychological Adequacy in the Later Years? What Should Be Our Goals?

(NOTE: Refer to the full context of the talk for information regarding medical advances regarding the chief causes of physical disability among older people--hypertension, other cardiovascular conditions; cancer; diabetes; neurological disorders such as Parkinsonism, Multiple Schlerosis, and others; blindness; kidney disorders, etc.)

"Less progress has been made, unfortunately, in identifying the causes and developing methods for prevention or cure of the forgetfulness and so-called 'senility' that disable so many older people in varying degrees. Of all the conditions that handicap and disable older people, I think that this is the one in which we have been more tragically negligent. We have regarded it not as an illness to be studied, its causes identified, and methods developed for its prevention and control, but as a hopeless result of age about which nothing can be done because we can't turn back the clock."

"In broad terms, perhaps we should state our objectives as, first, to make sure that people have something worth living for, some worthwhile purpose for which to use the health we want them to have; then to assure that, throughout life, all people have the psychological, emotional and physical health they need to accomplish this purpose.....and to make a good adjustment to the world in which they live."

"More specifically, we may list some of the things that should be done as including:

1. Research Research is greatly needed not only in the causes and methods for control of disease, but in such areas as (a) what is the role of older people in the family and in the community and what should it be; and (b) what can older people do to fill a valuable and valued place in the community?

2. Professional Education As research produces the information needed, this information must be put into the armamentarium of all the professionals involved in work with older people, their families, and the people who some day will become old. It must be integrated into the curriculum of professional schools and made available to those already in the practice of their professions through journals, workshops, etc.

3. Education of the Public .....In preparing this paper, I was attempting to identify the areas in which home economists have important contributions to make. Finally, I gave up because I was not able to identify any areas in which they are not needed. But, perhaps there is a particularly heavy responsibility for the home economist in this area. Especially through her work in child development and family living, she is in a key position to influence the attitudes and understanding of all the people and to help in the development of emotional and physical health in all members of the family, young and old.

4. Early recognition of the signs and symptoms of ill health and prompt treatment. Recognizing the distinction between age and illness is an important first step toward earlier recognition of illness. In addition, good services are needed in every community to make possible this early diagnosis and effective treatment of illness in the early stages. Home economists share with other professional groups a responsibility for furthering the development of good services of this kind in their communities.

5. Promotion of good services, and discouragement of bad or inadequate services in the community for the care of persons who are sick and infirm. Supplementing the facilities for early diagnosis and treatment of illness, every community must have good provisions for long term care of those persons who are sick and disabled. These

should include (a) the full list of services needed to help families care for their patients at home, and (b) good facilities in nursing homes for the aged and related institutions.

Here, again, the home economist has an obligation for participating with others in the community in promoting the development of such new services as are needed and in furthering improvements in the standards of care both in existing facilities and in the new ones developed.

NUTRITIONAL ASPECTS OF AGING [1/]

by Dr. Pearl Swanson, Professor of Food and Nutrition, Iowa State University.

The phrase, "an adequate old age," dots the pages of current gerontological literature. But what does the phrase mean, and what is its significance to those of us who are trying to enlarge our understanding of the needs of aging people in our society? Nicholson writes that adequacy means "equal to what is required" (1). From this standpoint, adequacy implies ability of people to adapt and adjust to the demands of changing circumstances. It also involves the capacity of an individual to adjust to changes occurring within himself. Adequacy at age 20 may be different than at age 60 or 70 or 80.

This concept of adequacy is presented graphically in figure 1. It points up some of the forces in our present society to which all people, young and old, are subjected. Their impacts are accentuated because ours is a changing society undergoing tremendous economic growth. It has become a highly industrialized society, with its farms and villages giving way to cities and suburbs and with people on the move. Attaining financial security is a major issue among many. The new society is creating new kinds of work and new kinds of leisure. Advances in technology are bringing about changes in ways of living. And affecting all people are the many developments that have come in medicine and sanitation, in nutrition, and in educational opportunities.

With all of this have come changes in cultural and social patterns. To a large extent, the nuclear family has replaced the kin family. The trend toward early marriages has been reflected in early completion of families; the working mother has appeared on the scene, and husband and wife have assumed new roles in the family pattern. There are empty middle years for women; problems for men brought by early retirement.

All of these forces operating in the world about us act and interact as they impinge upon the individual. They may hasten or retard his development as a person, influencing one way or another, within the prison bars of genetic endowment, changes that constantly are going on in his physiological and biochemical functioning and in his neural and endocrine responses. In the end, they determine the kind of a person an individual becomes. The degree of success with which he copes with the impacts of living marks his adequacy as a person and, thereby, the success with which he, in turn, can cope with the stresses of new circumstances as they arise. This applies to you, to me, and to every other living person.

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But how can degree of adequacy attained be measured? It grows out of and reflects directly the extent to which an individual has achieved total health (figure 2). Total health may be defined as a state of complete physical, mental and social well-being and not merely the absence of disease and infirmity (2). This, of course, exists only when an individual functions maximally as a physiological or mechanical organism, as a thinking and feeling unit, and as a part of the total social situation (3). Whether or not any person can achieve this state of perfect health for any significant period of time may be questioned. The important thing is that the definition recognizes that "health is a composite state - a complex phenomenon in which forces generated by physical change, by environmental change, and by psychologic and sociologic factors all play a significant role."

An aging person fortunate enough to have travelled a good distance on the road toward total health has the capacity for satisfactory involvement with the society in which he lives. Furthermore, when added years reduce ability for direct involvement, serenity and pleasure in living, which at this stage of life define adequacy (4), will reflect degree of total health.

Next to the contributions that advances in medicine have made, state of nutrition is the most important determinant of the health which may be enjoyed by people (5). It is our job to pinpoint its role in the adequacy that may be attained by the aged.

Before we can do so, however, it is important to develop a concept of what aging is. Students of gerontology define aging in different ways according to their special interests. It seems suitable, therefore, to choose, from the several concepts, one which recognizes the role of nutrition in the aging process. This immediately implies a concern with more than the gradual deterioration of the adult organism; i.e. senescence and senility, from which standpoint some authorities view aging (6).

So may we think of aging as a continuous process of change. Change characterizes the developing and the growing organism; it also characterizes the retrogressing organism. Aging, therefore, is a process that covers the entire life span. Each developmental level - infancy, childhood, adolescence, early adulthood, maturity, later maturity, and old age, is marked by characteristic change.

Today we are especially interested in changes that occur in the latter decades of life. What is their nature? One theory suggests that a loss occurs in the efficiency with which certain body systems and organs function. Thus Shock (7) writes that the amount of blood pumped by the heart decreases markedly from youth to old age, that there is a fall in the excretory capacity of the kidney in response to the administration of test substances, that there is a decrement in the transmission of nerve impulse, etc. Organ systems, however, vary in the degree with which changes in them progress with age, as well as with regard to pattern of change. On the other hand, in some organs, there is very little change in efficiency of functioning with advancing age.

Both anatomical and physiological evidence suggests that changes in performance are due to a loss of protoplasm, that individual cells die so that there is an actual decrease in the number of functioning units (8,9). The cellular changes which precede cellular death are not fully understood at present (7). There may be a thickening of cell walls and a deposition of collagen in intercellular spaces that interfere with the transfer of nutrients into the cell and with the removal of metabolic debris (10).

In trying to explain changes that accompany aging, it also has been conjectured that the cells making up old tissue may be less capable of carrying on their specific activities than are younger cells. Workers in Dr. Shock's laboratory have shown that there are significant reductions in the activities of certain cell enzymes with age (7,11). The magnitude of the change, however, is not as great as the changes age creates in total organ performance. It must also be assumed that breakdowns occur in the regulatory mechanisms, which may be either neural or endocrine in character. Total changes ultimately are reflected outwardly in the appearance and behavior of a person, his demeanor, his activity, his mental state, and his social and emotional reactions.

Role of Nutrition in the Aging Person

Nutrition assumes an important position in the aging process when viewed from these physiological and biochemical angles. A concept of nutrition recently developed by a Committee of the American Medical Association on Nutrition Teaching in Medical Schools emphasizes its role (12).

> "Nutrition is the science of food; the nutrients and other substances therein, their action, interaction, and balance in relation to health and disease, and the processes by which the organism ingests, digests, absorbs, utilizes, and excretes food substances. In addition, nutrition must be concerned with certain social, economic, cultural, and psychological implications of food and eating." p. 955.

Embodied in this concept are the principles of nutrition with which we all are familiar. It takes into account the distribution of nutrients in natural and processed food materials. These nutrients are the building stuffs from which bones, teeth, muscle, organs, blood, and other tissues and body fluids are made. Food also provides materials used for maintaining the complex processes of life, which demand nutrients capable of being converted into energy, for the fabrication of enzymes and hormones that speed up chemical reactions in the body and keep them going, and for the regulation and control of body functions.

The nutrients act, interact, and balance each other in all the vital processes that comprise life. When food does not provide adequate amounts of the essential nutrients over a period of time, alterations occur in the composition of the fluids that bathe all cells in the body. When this occurs, the cells, whose life and vigor depend on the maintenance of a nearly constant internal environment, do not receive adequate nourishment. Fibrosis of the cell wall may disturb parenchymal nutrition further. Eventually there comes a time

when the cells cannot adjust to the alterations, and a whole chain of changes occurs that shows up in changes in outward characteristics. It is significant that changes induced by poor nutrition may take on characteristics that we associate with the aging process.

But nutritional state is a mobile and fluid condition and may be modified adversely by many conditions and experiences of living, even in the presence of an adequate food supply. In influencing nutrition, they influence the adequacy of an individual. Some of these modifiers of nutrition are related to social and economic conditions, others reflect environment and education, many have their origin in the problems of our changing society. Therefore we are glad to see that the Committee on Nutrition Teaching in Medical Schools is concerned about these issues.

Importance of Good Nutrition in Early Life. The rate at which changes associated with the aging process occur is affected by the state of nutrition that has been maintained since early life. Dr. Nathan Shock (7) has written that preparation for a healthy old age may well begin in the office of the pediatrician. Experiments with animals demonstrate a lengthening of the life span with increased vitality when a test ration believed nutritionally adequate is enriched with milk powder from the time of weaning (13). Also, it has been shown that underfeeding of rats in early life contributes to longer life span and to a lower incidence of organic lesions often associated with aging such as tumors, ulcers, etc. (14).

The effect of dietary deficiencies in early life may not appear until late maturity (15). In our own laboratory, sudden and nearly simultaneous death occurred among the individuals of a group of 100 seemingly healthy adult rats that had been subjected to vitamin A deficiency for a short interval immediately after weaning. Death was attributed to large kidney or bladder stones, the presence of which was disclosed upon autopsy. Apparently, vitamin deprivation had left nutritional scars from which recovery was impossible.

Nutrition and Premature Aging. What thought does the following statement convey to you?

> Nutrton s the scence of food, the nutrents and other substances theren, ther nteracton and balance, n relaton to health and dsease, and the processes by whch the organsm ngests, dgests, absorbs, transports, utlzes, and excretes food substances.

At first glance, it surely is not very meaningful. But look at it closely. It is not intelligible because one letter, and one letter only, has been omitted in the words of the statement - the letter "i." Return the letter, and sense returns to the whole statement. What we have is our definition of nutrition.

Just as an intelligible sentence requires that all needed letters be present simultaneously, the on-goingness of metabolic processes demands that all essential nutrients be present simultaneously in the fluids nourishing the

cells. The omission of even one nutrient makes it impossible for the body to maintain the sense, continuity, and orderliness of its life activities. Some of the ailments of old age undoubtedly have their origin in a defective nutritive milieu. The various symptoms of acute dietary deficiency disease described by Dr. Tom Spies and his co-workers (16) give graphic illustration. Although such disease is rare in the United States today, nutritionists can recognize in middle-aged and older members of the population, shadows of the symptoms described. Foremost among these subclinical signs are loss of interest in life, lassitude, fatigue, emotional upsets, anxiety states, and changes in physical characteristics - a premature aging. Most dramatically, Dr. Spies has described the return of more youthful attributes upon enrichment of diet. Thus, some of the characteristics of senility may not be the stigmata of old age but of nutritive failure.

Influence of Stress. Reaction to stress also may give rise to unfavorable nutrition among the aging and the aged. These stresses may take many forms: Changes in environment, in family patterns, in spouse relations, or in social or economic status. Illness, shock, or deaths in the family may be involved. Women particularly may resort to over-eating in response to a stress situation. This urge to eat more than their bodies require temporarily alleviates their feelings of insecurity and tension, and they find comfort (17). On the other hand, some people react by refusing to eat food adequate for their needs.

Fears and Worries of the Aged. Anxiety states of the aged individual may lead, not only to inadequate food intake, but to impaired utilization of the nutrients provided by the food eaten. This situation is portrayed in figure 3 showing the day-by-day utilization of dietary protein by a 76-year-old woman who served as one of our experimental subjects while living on her own regular self-chosen diet. The curve is based on data expressed in terms of body nitrogen either gained or lost from the beginning day of the test to each successive day of the experiment; i.e., "accumulated nitrogen." The horizontal line of the chart represents nitrogen equilibrium, the situation when intake of food nitrogen balances in amount losses from the body. Areas above this line indicate periods when food nitrogen was stored in the body; areas below the line, intervals of systemic loss.

With many elderly subjects who ingest just about enough nitrogen to satisfy body needs, periods of nitrogen loss are followed by periods of nitrogen storage so that in the long run equilibrium is achieved and a fair state of protein nutrition ensues (18). The figure shows that such ebb and flow in balance is characteristic of this woman during the first 40 days of the experiment. For 20 days thereafter, she maintains daily balances that keep her in a state of balance just below equilibrium. But then she slips into a period of severe nitrogen loss as shown by the downward slope of the solid black portion of the curve. At this point, the subject lost her happy disposition. She became depressed, nervous, cross, and irritable. Inquiry disclosed that she had been spending her days in the hospital with an aged aunt in the last stages of a terminal illness. And she was beset by a fear that, when it came her turn to die, there would be no one to sit at her bedside during her last days. During

these 23 days of emotional crisis, she threw away nitrogen equivalent to 42 grams of body protein. Upon the death of the aunt, the subject gained her equanimity, and she immediately began restoring the body protein which she had lost.

Erratic Eating. Another problem encountered among older people is that of irregular eating (19). This practice may begin in middle life, particularly among women, when households diminish in size and homemaking tasks lighten. Changes in meal patterns gradually appear, and erratic eating may become the rule rather than the exception. Days of nibbling may be followed by days of excesses. Too few calories one day, too many the next. The data in figure 4 illustrate the relationship of food habits like these to state of nutrition. The tall bars show the variation in the daily caloric value of the food eaten by one of our subjects over a period of 28 days; the shaded bars, the daily intakes of protein expressed in terms of nitrogen.

The energy value of the day's food intake varies from 800 to 3,700 Calories. The protein value of any day's diet follows right along with its daily caloric value - up when the calories are up - down when they are down.

The nitrogen balances accumulated day by day as the experiment proceeds are shown in the curve at the bottom of the chart. Losses in body nitrogen occur day after day except for a period when the energy value of the food intake jumps to over 3,000 Calories daily and the protein intake to about 100 grams. But even so, as the net result of the dietary variations, there is a loss of about 60 grams of body protein by the end of the experiment.

What sort of dietary practices were responsible for this picture? The subject did not eat breakfasts. On some days she ate only one meal. At times she lunched on a piece of cake or a cinnamon roll. Snacks played an important part in her eating. One day she obtained 1,400 Calories from toasted and buttered cereal and nuts. In her own words, she was "jittery and unsettled" much of the time. Indeed, dietary indiscretions like these may have a high nutritional cost reflected in breakdown of tissue, the development of irritability and anxiety states, and ultimately a general decline in health.

Eating Alone. Closely related to the problems introduced by erratic eating are those that arise when a person is forced to eat alone. One of our elderly subjects, living alone and eating her customary diet, lost 106 grams of body protein in a period of 35 days. This subject was observed again some two years later. Her grandson was now living with her. Her meals furnished the same amount of protein as they had previously but a marked change in utilization occurred. Now in a 35-day period she stored the same amount of protein in body tissues that she had thrown away in the first experiment. We believe that companionship and sharing of meal were partly responsible.

Nutrient Intakes of Aging People

Up to this point, we have considered the role of nutrition in the aging process

and its contribution to the adequacy of the older individual. We also have considered a few situations contributing to impaired nutrition, disability and ill health. These issues certainly raise the question: How well do the diets customarily consumed by elderly people meet their nutritional needs?

Studies conducted in various parts of this country on the kinds of diets chosen by people in middle and late maturity and in old age (20) disclose that food eaten by many people is likely to be deficient in one or more of the essential nutrients. Diets of men appear to be better than those of women. Results of studies made in Iowa fall in the general pattern of those reported in studies conducted elsewhere. I shall, therefore, to illustrate salient points, draw upon data collected in a state-wide survey of food intakes of a group of Iowa women, 30 to 90 years of age, and representing an area probability sample (21).

In general, except for calories and calcium and possibly for riboflavin and niacin, mean amounts of nutrients in the diets reported by the women approximated the allowances recommended by the Food and Nutrition Board of the National Academy of Sciences - National Research Council in 1958 for moderately active women 45 years old.

The daily food intakes of many individual women, however, furnished considerably less than the recommended amount(s) of one or more of the essential nutrients. The number of women whose reported dietaries fell in this category was estimated against the criterion that two-thirds of the recommended allowance represents the minimum amount of any nutrient needed. In general, nutritionists have been willing to accept this criterion because the allowances as formulated cover individual variations in food intakes of normal persons living in the United States under usual environmental stress. The percentage of women reporting food intakes that did not meet this criterion in regard to several of the nutrients is shown in figure 5. Many women choose days' meals grossly inadequate in energy even in these times of energy-saving devices, simplified food preparation, transportation on wheels, and inactive recreation. Thirty-three percent are selecting diets low in protein. Many use diets deficient in ascorbic acid and vitamin A value. But, by far, the greater number, 68 percent or about 439,000 women, consume diets furnishing inadequate calcium according to present standards. These data must not let us lose sight of the fact that diets categorized as low in one specific nutrient may be deficient in several. All in all, the data make clear that a large segment of the female population of Iowa is preparing for old age upon diets that cannot meet nutritional needs. Are these women hastening, altering, the changes associated with the aging phenomenon, thereby reaching "a ripe old age" too early?

Changes in Nutritive Value of Diets in Aging

All of us, I am sure, are aware that food habits change as people grow older. The extent to which these changes are related to changes in the dietary value of food eaten becomes an important question in any consideration of the welfare of aging and aged citizens. To secure information on this topic, changes in intakes of the essential food nutrients by groups of Iowa women representing

consecutive age-decades and eating their regular self-chosen diets were examined. The situation in respect to four key nutrients only - food energy, protein, calcium, and ascorbic acid - will be discussed. Similar changes occur in intakes of the other essentials.

Changes in Food Energy Values. The daily caloric value of diets chosen by Iowa women decreases from decade to decade. The slope of the line in figure 6 depicts the mean rate of decrease, food energy value of food consumed dropping from about 1,900 Calories at age 30 to 1,400 Calories at age 90. The gradual decrement observed is a normal and expected phenomena resulting first from a decrease in the basal energy requirement brought about by the losses in protoplasm that seem to be part of the aging process (7), and second, from the lessened demands of the low activity patterns of the aged.

With the average energy value of the diets chosen by the women in the 30-year decade well below that of the recommended allowance, the caloric values of the diets of the women who have passed age 70 become of special concern. To emphasize the extent to which values may fall, the portion of the data in figure 6 relating to this age group is blocked, and the mean energy value of the diets customarily chosen by women in consecutive age groups (i.e. 70, 71, 72, etc.) is shown by a series of dots.

If the allowance for food energy recommended for women age 65 is taken as an index of the needs of women past 70 years of age, only the 73, 75 and 78-year-old women select diets whose potential food energy value approaches 1,800 Calories (note upper horizontal line). But even more noteworthy is the number of these older age groups who are eating diets with an average daily food energy value of 1,400 Calories or less. Average figures of this order mean that some of the individuals in each group are choosing foods whose daily energy value falls well below the mean figure.

We tried to discover the reasons behind the use of these low-calorie diets. Here are some of the reasons given: "I am trying to reduce; I don't eat regularly; I can't eat more; I can't afford any other kind of food; I can't chew many foods."

Diets providing as little energy daily as did those of these women represent definite risks. In the first place, provision of energy food in amounts that meet the needs of the body is of primary nutritional importance. A continuous supply of energy must be available if body cells are to carry on the biochemical reactions characteristic of life. When food energy is inadequate, there are alterations in the normal patterns of metabolic activity in which all nutrients are involved.

Even though intake of protein, for example, may be adequate, suboptimal provision of energy-producing foods will interfere with its utilization to an extent that body needs will not be met. When the energy value of the diet is low, the body burns protein to secure its needed energy instead of using the protein to repair and maintain tissue. This situation is illustrated in figure 7. Here

are shown the nitrogen retentions of four groups of women, 50 years of age and over, whose diets, while providing on the average nearly equal amounts of protein, are of graded caloric value. It is clear that there are losses of body nitrogen when the food energy value of the diet is less than 1,800 Calories. However, diets yielding 1,800 to 2,099 Calories permit the establishment of nitrogen equilibrium and 2,100 Calories or more insure nitrogen retention. Diets providing less than 1,800 Calories, thus, may induce a double nutritional deficit.

The use of low calorie diets introduces a second complication. It is difficult, indeed, without careful selection of food items, to meet needs for other important nutrients when the energy value of the day's meals falls below 1,800 Calories (21,22). We found, for example, when we studied the day's food reports from the women in our survey, that diets providing 1,800 Calories or less of food energy also were inadequate in protein, calcium, iron and several of the vitamins. Food intakes of higher caloric value, on the other hand, contained sufficient amounts of these nutrients for dietary safety. In other words, a natural food rich in some specific nutrient may also be rich in fats, starches, or sugars. Think of protein in meat, for instance, iron in liver, riboflavin in milk, or vitamin A in egg yolk. These are some of the foods that should be in diets of low caloric value.

It is easy in view of these considerations to trace the feelings of fatigue, lassitude and lack of interest in life exhibited by many of these elderly women to the low caloric values of the diets they consumed. Perhaps too many of them, also, were choosing food that represented "empty" calories - white toast, cake, cookies, fruits of low fiber content and little nutritive value. Inadequacies thus introduced, together with inefficient use of dietary protein, exaggerate the effect of insufficient energy and perhaps are related to the appearance of premature symptoms of aging.

The question of the energy requirement of the aged still is unresolved. This is an area to which basic research taking into account the many facets of the energy requirement must be directed. The survey data provided us, however, with a rough estimate which may be helpful in assessing the energy needs of aged women. We argued that those women who were maintaining a "desirable body weight"* probably were meeting their requirements. These individuals were sorted out of the group of 1,072 women interviewed and classified by age. These women reported dietaries whose caloric values dropped from an average of 1,940 Calories daily for women in their 30's to 1,580 Calories for women 70 years and older (24). This suggests that the energy requirement for aged women is closer to 1,600 Calories than 1,800 Calories. But the consumption of diets of even lower caloric value than this seems to be the usual and accepted food pattern of the aged. One cannot but believe that many elderly people undoubtedly would benefit from more food energy than they presently are receiving from their diets.

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*Defined as average weight of women of specified height at age 30.

One might expect to find that the elderly women using these low-caloric diets were underweight. But this was not so. Instead, on the average, they tended toward overweight. The prevalence of overweight among persons reporting dietaries of low caloric value has been reported by others (24,25).

Overweight among elderly women represents poor nutrition just as truly as does underweight. Physically and mentally, overweight persons feel the oppression of carrying around extra poundage; they are prone to accident; they are poor surgical risks; they suffer frequently from disorders like gall-bladder disease and diabetes. Many of the overweight subjects themselves reported that they did not "feel good," a condition traceable to the incidence of many minor ailments and discomforts.

It may be that empty calories provide an explanation for the paradoxical situation of the prevalence of overweight among persons choosing diets of low energy value. If diets of low caloric value are likely to be deficient in several important nutrients unless carefully selected, one begins to wonder whether or not overweight, in part at least, may not be the response to inactivity induced by inadequate nutrient intake and subnormal utilization of food nutrients.

Protein. People, as they grow older, tend to reduce their consumption of protein-containing foods. Among the women in our survey, the mean protein value of the days' dietaries drops from 67 grams at age 30 to about 45 grams at age 90 (figure 8). If the recommended allowance for women 65 years of age is accepted for those 75 years of age and over, none of the mean intakes of the women in this age bracket meets the recommendation. Many of the women, as indicated by the scatter of dots in the figure, are consuming, on the average, diets providing in the vicinity of 45 grams daily. This may well be a corollary of the average low energy value of diets consumed.

The importance of adequate protein in the diets of the aged cannot be overemphasized. The work of the cell is accomplished through its complicated system of enzymes, all of which are protein in nature. Enough protein must be provided for their constant renewal. Deficient dietary protein may well be related to the early appearance of symptoms of aging.

Consumption of inadequate protein, like consumption of diets of low food energy value, may introduce nutritional hazards other than those of protein lack (figure 9). Certain nutrients like iron and the B-vitamins are found in many protein-rich foods. In other words, they "live together." The figure shows that if the days' diets, on the average, contain less than 50 grams of protein, only about 54 percent of the diets will provide approximately two-thirds of the recommended allowance for iron - probably the minimal amount for nutritional safety. But if the daily food contains more than 50 grams of protein, all (100 percent) may be relied upon to contribute about two-thirds of the iron requirement. The other pairs of bars show the situation in respect to thiamine, riboflavin and niacin (26). Thus, an adequate intake of protein may insure adequate intakes of other essential nutrients also.

Calcium. It is a misconception that adults outgrow their needs for calcium (27). The idea probably originates in the notion that the skeleton is only an inert framework for the support of the tissues and organs of the body; that bones have no further need for this nutrient when the period of growth is over. Medical research, however, has shown that the skeleton is the store house for the calcium releasing it constantly for the maintenance of the coaguability of blood and the excitability of muscle and nerve. The replacement of this calcium means that bone in the adult is being remodeled constantly. It is significant that this capacity of bone to rebuild and remodel itself is not lost in healthy old age (28). However, changes in ability to absorb calcium, in the activity of the endocrine glands, and in physical activity may be associated with a loss of bone calcium. These situations may interfere with the normal deposition of calcium in bone. With the constant withdrawal of calcium, the bones become less dense so that they break and fracture easily.

Of special interest is the incidence of osteoporosis among the middle-aged and the aged. Osteoporosis, or bone atrophy, is a disorder of the bone that has been regarded as an accompaniment of aging. Although it is recognized that the etiology of osteoporosis is complex, the idea is gaining ground that low intakes of calcium in early life may play a role in the development of this bone disease (27). Some people may adapt to dietary intakes of calcium below what is presently recommended. Others may not have this capacity. In this latter event, loss of bone substance may lead to the development of osteoporosis. It is significant that the condition often responds to calcium therapy (29). If future work establishes that dietary calcium plays a part in preventing osteoporosis, the premise that there is a need for an abundant calcium intake by the aged will find support particularly in view of observations indicating continuing activity of bone processes in the elderly. We may come to think of osteoporosis as the outcome of a nutrient deficiency rather than as a symptom of aging.

In view of the importance of calcium in maintaining health, situations in respect to calcium intake by the elderly are gloomy. Again, may I illustrate from data obtained in our survey of food intakes of Iowa women. We already have noted the high percentage of women over age 30 in Iowa who eat diets that do not meet even two-thirds of the recommended allowance for calcium. The situation worsens as women advance in age (figure 10). Although the mean intake of calcium on the part of the younger women approaches nutritional safety (i.e., 0.6 gram per day), that of the older woman (70 years of age and over) drops to only 0.4 gram per day. The scatter of dots shows that about one-half of the individuals in each of the consecutive age-groups are getting even less than this. Indeed, 30 percent of the individual women, 70 years of age and over, use no milk at all, without which it is difficult to secure even 0.2 - 0.3 gram of calcium per day. Present-day concepts of the way calcium functions in the body emphasize the continuing need of an abundant calcium intake by adults and older people and challenge nutritionists to help them increase the consumption of calcium-rich foods.

Ascorbic Acid. As people grow older they have a tendency to decrease the

use of foods rich in the important vitamins. The diets of women, according to our records, are likely to be deficient in ascorbic acid, the B-vitamins, and vitamin A and its precursors. The situation can be illustrated with ascorbic acid. Figure 11 shows the decline in the consumption of ascorbic acid-containing foods with advancing age. The majority of the consecutive age-groups in the 8th, 9th and 10th decades reported the use of diets providing much less than the recommended allowance (70 mg per day). Certainly, the use of ascorbic acid-rich foods is far from popular. One wonders if there has not been a crystallization in the minds of some of these women that fruits and vegetables are not good for them.

Vitamin deficiencies may well exaggerate the symptoms of aging. Vitamins are important parts of enzyme systems that regulate the use of other nutrients in growth, in the maintenance of life, and in the release of energy for work. Metabolic upsets resulting from the absence of a specific vitamin(s) being reflected in the condition of the bones, teeth, skin, muscles, glands, and nervous and connective tissues, affect the way an aging person looks, or acts, or feels.

Food Patterns of the Aged

From the practical standpoint, it is important to translate these observations of nutrient intakes of the elderly into food patterns representative of what they eat. In table 1, are listed the food groups that make up the usual American dietary, together with the number of calories each food group provides in the diets of 30 to 39-year-old Iowa women and in those women 70 years of age and over. Thus the tabulation gives a somewhat quantitative record of changes in the use of the various food groups.

The decrease in the consumption of meat, poultry and fish by the women 70 years or more old is both absolute and relative. On the average, the group provides 237 Calories of food energy in the diets of the younger women and only 123 Calories in the diets of the old. Thus there is a drop from 13 to 9 percent in the relative contribution made by this food group to the total energy value of the diet, a situation accented by the fact that the diets of the elderly contribute fewer total calories than those of the younger women.

Milk in diets considered adequate for adults contributes 330 Calories per day. The younger age group in this study does not meet this goal for they choose diets furnishing, on the average, only 125 Calories from milk daily. The deficiency becomes more acute among the aged, who receive only 85 Calories from this source.

Although the absolute food energy value of the cereal products eaten by each age group appears to be about the same, this food group provides only 17 percent of the total calories for the day in the case of the younger women against 22 percent of the calories provided by the diets of the aged women. It should be noted, however, that the consumption of cereal products by the younger group of women may be somewhat excessive (21, p. 491).

On the absolute basis, the older women secure fewer calories from eggs, cheese, and legumes; white potatoes; and sweets and desserts than do the younger women. But percentage-wise, each food group contributes in the same proportion to the total energy value of the diets consumed by each age group.

The situation with respect to fruits and vegetables is more difficult to analyze because the low caloric value of many items in this food group hides differences in consumption. However, data in figure 11 suggest that differences noted in the table are real. It appears also (21, p. 491) that potatoes are consumed at the expense of fruits and vegetables other than the green and yellow by both young and old Iowa women.

In summary, food patterns of the aged closely approximate those reported by the 1961 White House Conference on Aging (30). It appears that, although older people continue to eat in general what they have become accustomed to over the passage of years, they eat less of it. Among the aged women studied, the average number of calories furnished by most food groups decreases in early direct proportion to the decrease in total energy value of the diet. Two important food groups are exceptions to this general pattern: cereal products and meat, fish and poultry. Continued use of cereal products in amounts consumed by the younger age-group makes up some of the calories lost with the decreased use of foods rich in protein. Decreases in consumption of milk, a food unpopular even among the young women, and in use of fruits and vegetables introduces serious nutritional deficiencies in the diets of the old. It is not difficult, in the light of these trends, to see how an oatmeal, tea and toast diet may become a favored diet among the aged.

Factors Responsible for Changes in Eating Habits

Changes in efficiency of physiological functioning undoubtedly contribute to changes in eating habits as people grow older. Certain foods may be refused routinely because of difficulties in mastication associated with the loss of teeth and the use of improper dentures or of none at all. Food biases and intolerances may develop through reaction to decreases in the secretion of digestive juices and in the motility of the gastro-intestinal track, or to less efficient absorption and utilization of food nutrients.

Let us take one example. Many elderly people have an aversion to fatty or, as they say, "rich" foods. The reason may be in the inability of these individuals to absorb and utilize fat as efficiently as they did in their younger days. As a meal of fat is absorbed by a subject in the fasting state, fat particles or chylomicrons appear in the blood stream and after a time reach a concentration considerably above that characteristic of the fasting condition. The fat particles then begin to disappear, and their concentration finally drops to that of the fasting level. Rate of absorption is measured by the time that is required to reach the peak concentration; utilization, by the time required for return to the fasting concentration.

The data in figure 12 show (compare curves A and E) that women in the eighth decade of life require a markedly longer time to absorb and utilize a given quantity of fat than do women in their thirties (31). Such delayed absorption and the sustained concentration of fat in the blood, coupled or not as the case may be, with impaired biliary function, may explain in part why some people as they grow older lose their desire to eat foods rich in fat.

However, changes in food habits of the elderly cannot be explained entirely on the physiological basis. There may be changes in external living conditions. Incomes, and consequently food budgets, may decrease as individuals reach and pass retirement age. Elderly couples or individuals living by themselves may find it difficult to get to stores to buy food, and may feel that the planning and preparing of complete meals call for more effort than they can afford. Older persons living with younger family members or in "homes" for the retired or the aged may find the food served to them unappealing because it may be different from that to which they are accustomed, or because they simply do not like it, or think they cannot tolerate it.

What is an Adequate Diet for the Aged?

What constitutes an adequate diet for the aged? This is a question that we cannot answer fully at the present time. The best we can say is that, except for calories, the aged person seems to require about the same amount of each essential nutrient as the younger individual. And it is rewarding to find that some healthy active old people by choice consume diets meeting the allowances for younger people (32).

However, many problems are created by the fact that too many older people either do not receive or refuse to eat quotas of food that will provide these needed nutrients and that their state of health reflects these omissions. It is encouraging that Dr. Spies' experience points to the possibility that nutritionally guided adjustments in the kinds and relative proportions of the foods that older people usually consume may improve the cells' internal environment to an extent that will be reflected in improved health. The idea that consumption of adequate diets may be an effective weapon in combating health problems in the aged is further emphasized by observations that older people have not lost their capacity to build new body tissue or to mineralize their skeleton when their diets provide adequate protein, calcium, and vitamin D (28,33).

That people past middle age will react positively to dietary improvement has been demonstrated by long-time nutrition studies in our laboratories of a woman well past middle age. This particular subject when living on her regular self-chosen diet experienced acute losses of body protein (18). But as soon as she added more protein to her diet, an avid retention of nitrogen ensued (curve at right, figure 13). Storage was still going on when the subject was restudied the following year (curve at left). Apparently this subject had been living in a state of protein depletion. The new reserves of body protein not only will serve her well in case of physical emergency such

as surgery, accident, or infection, but also will prepare her to meet her later years successfully.

Response was even more dramatic when milk was added to the day's meals of this same subject, thereby increasing the calcium value of the diet (figure 14). In a 112-day period, the quantity of calcium in skeletal tissues increased by 11,000 mg (34). During the 1953 study when the high-protein regime was first used, the subject volunteered that she could not remember when she felt as well as she did then. Her improved condition was apparent to all, to laboratory personnel, her friends, and her doctor.

Findings like these point up the need for research in this area, and particularly for carefully controlled longitudinal studies planned to study the effects of dietary factors on the aging process.

What Can We Do?

Eating an adequate diet is as important to the aged as it is to children. But how can this fact be brought home to them? The need for programs that will teach the importance of nutrition in maintaining health and help in choosing diets that will provide all of the essential nutrients was brought out clearly in our survey of the characteristics of aging persons in Linn County (35). We found that among the 695 persons, 65 years of age and over, who made up the sample, only one person in twenty was choosing a nutritionally desirable diet. Thirty-eight percent did not eat diets providing enough protein, 59 percent did not get enough vitamins A and C, and 79 percent, enough calcium. It was disconcerting indeed to discover, when the respondents were asked to evaluate their own diets, that 34 percent considered their diets very good, that another 65 percent considered their diets good, and that only 2 percent thought their diets were poor.

How can we, as nutritionists in home economics, reach this age group with our teaching? But before we can teach, we must engender a desire to know on their part. We need to do some original thinking in developing approaches that will break through reactions about diet arising out of the experiences of years of living, set attitudes, food aversions and intolerances, real and imagined. We need to convince these people that knowing how to choose a diet that will meet their needs will pay dividends in improved health. Would knowing "why" before knowing "how" excite interest? Does involution of interest toward self that occurs in many aged individuals offer a key in the initial breakthrough? This accomplished, we recognize, of course, that dietary instruction must be specific, detailed and considerate of life-long habits.

But we must not forget, in the developing of educational programs directed toward the nutritional welfare of the aged, that programs must be programs of prevention as well as of cure. We must be concerned today with the nutrition of the persons who will be the aged of tomorrow. Today, we need to try to touch people at every interval of the life cycle. All groups must come to view food habits, not only in terms of the present, but of the future. Does a

pregnant woman, for instance, realize that the kind of food she is eating may influence the degree of health that will be experienced in old age by the child that she is carrying? Adequate preparation for old age is something our populace must learn to take in its stride, and the attainment of a good nutritional state early in life is a very important factor in this preparation. In other words, nutritional education can do a great deal to effect a change in our attitudes toward aging.

This, indeed, is a challenge to home economics. Nutritionists need to explore every angle from which they may make their attack--as teachers, as dietitians, as extension workers, as social workers. Nutrition consultants are needed to help operators of institutions or homes for the aged, in home-visiting services, in meals-on-wheels projects, in doctors' offices. The home economist in business indirectly may have unusual opportunities. Selling the importance of nutrition to an employer may not only enhance the effectiveness of her program with the public but improve the kind and quality of the product with which she deals. The development of appetizing, digestible food products--meats, fruits and vegetables prepared with their fiber content in mind, etc.--for use by the aged would help in the solution of many nutritional problems of the aged.

Presently there is a significant movement in the medical profession to improve, extend, and crystallize nutrition teaching in the medical school and to develop programs of continuing education for physicians in the field (12). This means that many more people will be touched by sound nutritional advice than ever before. It is hoped that the dietitian and the nutritionist may participate in these programs as they develop - both in the planning and in the "doing" stage.

Home economics does have a stellar role in programs dedicated to the improvement of the nutrition of the aged. But home economics also must be alert in accepting the challenge of coordinating and integrating its efforts with those of other agencies interested in promoting good nutrition. In light of the vastness of the task ahead, the efficacy of united effort in helping people advance closer toward the goal of total health and to achieve adequacy as older persons cannot be debated.

Table 1. Dietary patterns of young and aged women expressed in terms of mean number of calories provided by various food groups.

	Women, 30 - 39 years of age (1)	Women, 70 years of age and over (2)
	Calories	Calories
Total diet	1,848	1,426
Meat, poultry, fish	237	123
Eggs, cheese, legumes	75	56
Fluid milk	125	85
Cereal products	322	317
Fats	380	297
White potatoes	144	112
Vitamin-rich fruits and vegetables (3)	80	76
Other fruits and vegetables	67	54
Sweets and desserts	388	284
Soups and miscellaneous	30	22

(1) 282 Women

(2) 147 Women

(3) Dark green, yellow, and those providing ascorbic acid

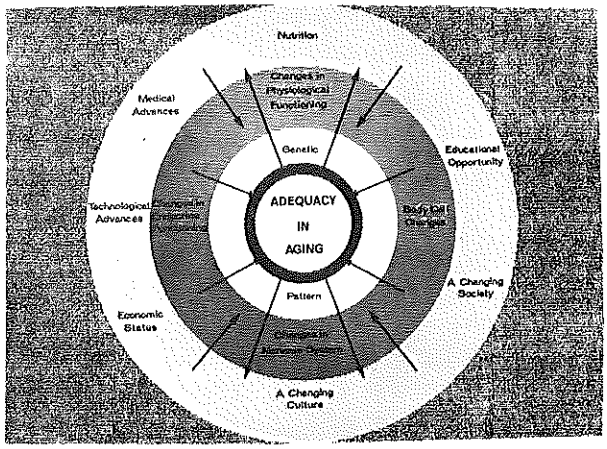


Figure 1. Adequacy in aging

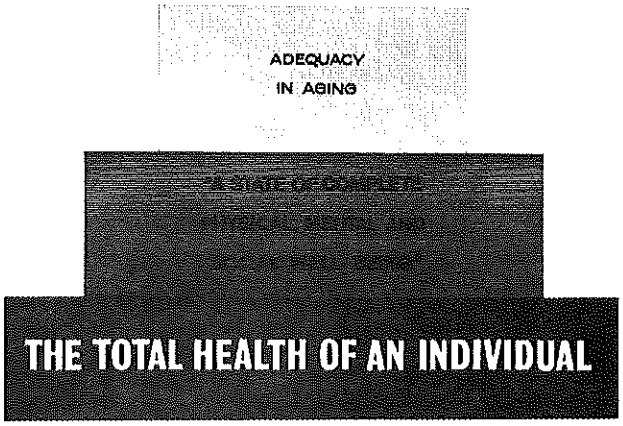


Figure 2. Adequacy in aging and total health

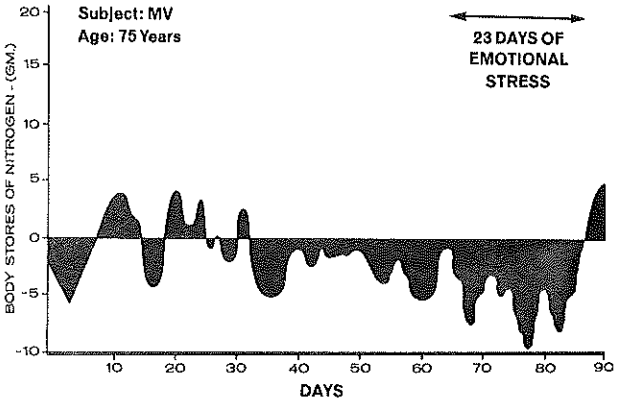


Figure 3. Emotional stress and retention of nitrogen by an aged subject

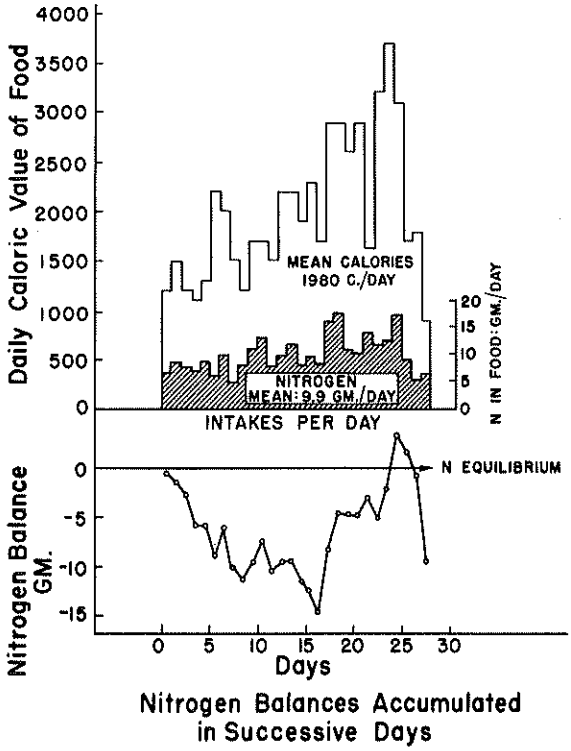


Figure 4. Erratic eating and the retention of nitrogen

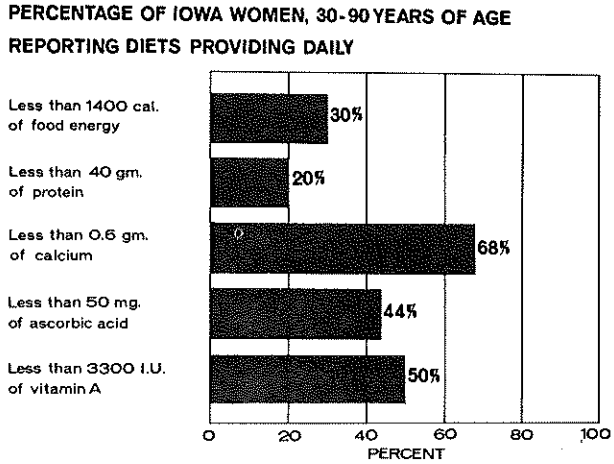
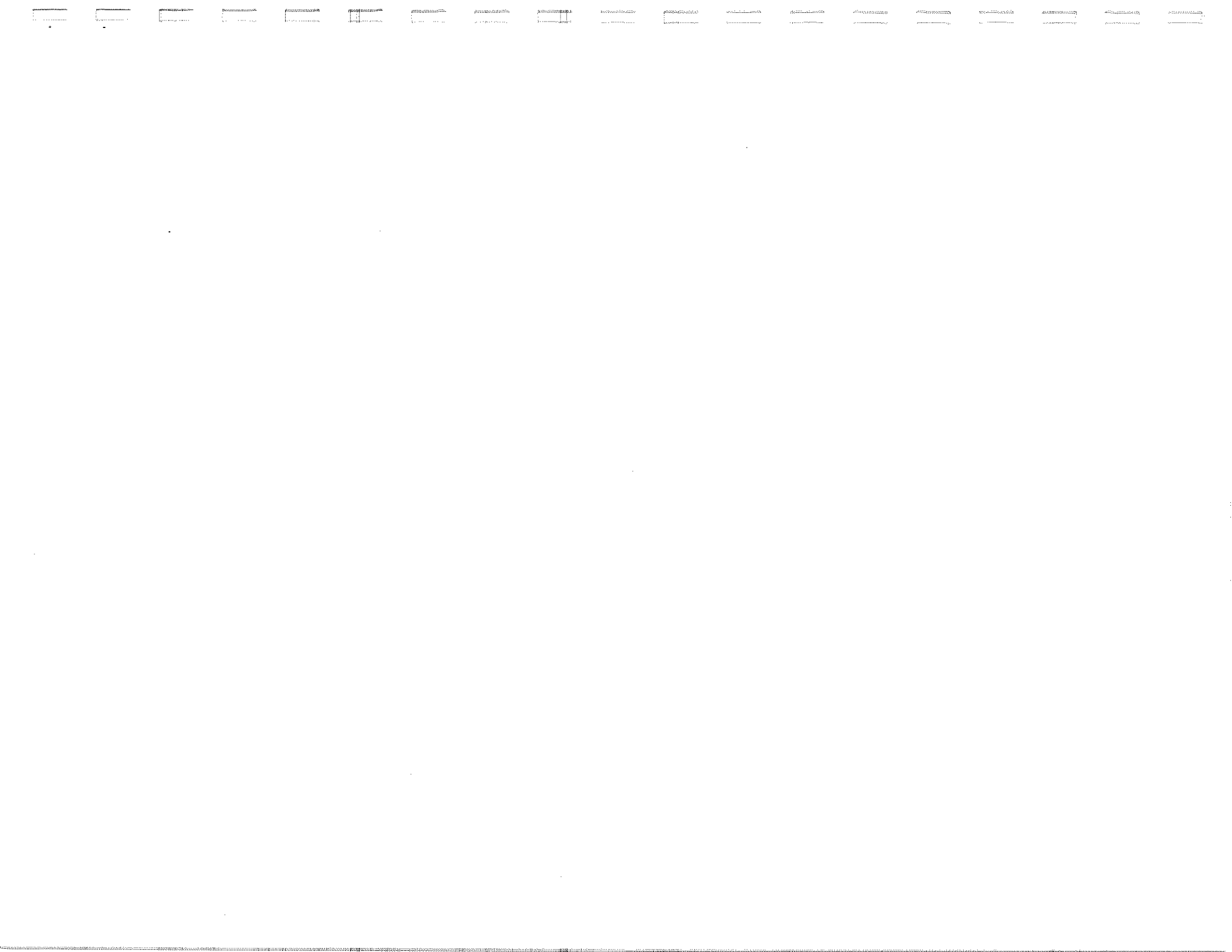


Figure 5. Percentage of Iowa women whose diets fail to provide two-thirds of the recommended allowances for certain nutrients



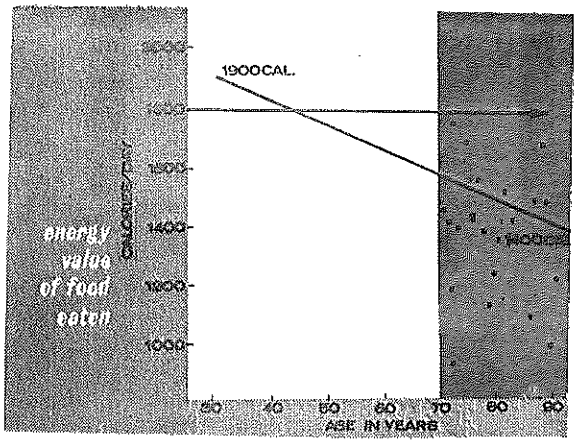


Figure 6. Changes in food energy value of self-chosen diets of 1,072 Iowa women with advancing age (Horizontal arrow, recommended allowance for calories at age 65: Dots, mean energy values of diets at consecutive one-year age intervals)

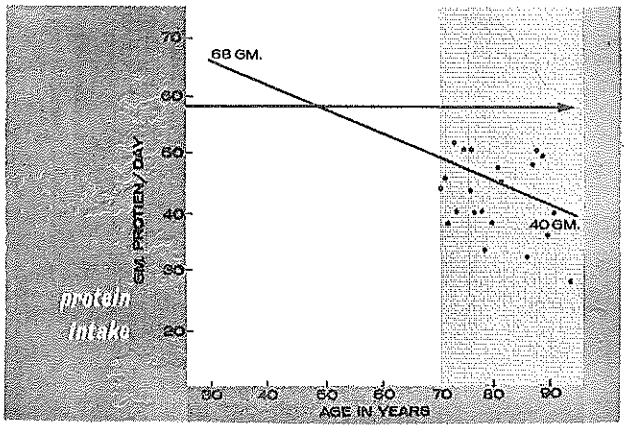


Figure 8. Changes in protein value of self-chosen diets of 1,072 Iowa women with advancing age (Horizontal arrow, recommended allowance for protein at age 65: Dots, mean protein intakes at consecutive one-year age intervals)

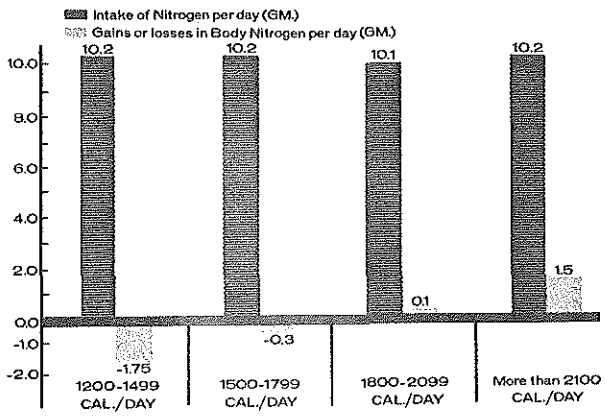


Figure 7. Caloric value of diet and the retention of nitrogen by women, 50 years of age and over, consuming approximately the same amount of protein daily

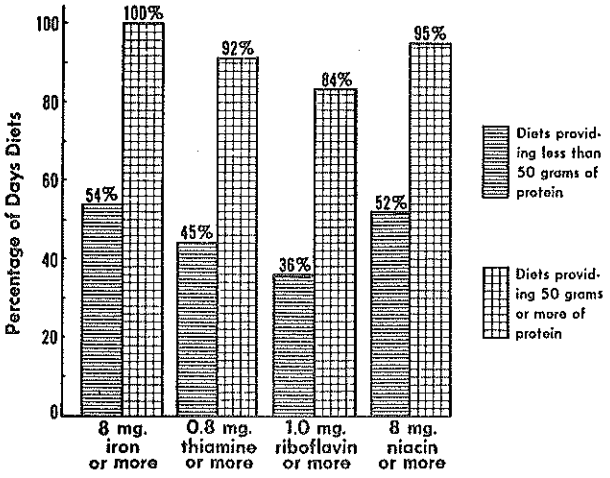


Figure 9. Percentages of daily diets of Iowa women providing at least two-thirds of the recommended allowances for iron and three B-vitamins at two levels of protein intake

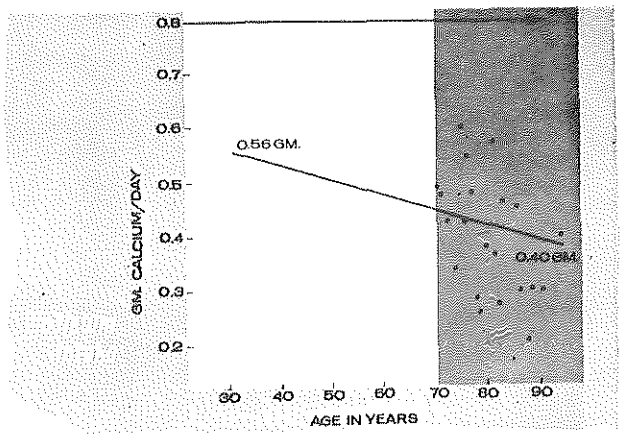


Figure 10. Changes in calcium value of self-chosen diets of 1,072 Iowa women with advancing age (Horizontal arrow, recommended allowance for calcium at age 65: Dots, mean calcium intakes at consecutive one-year age intervals)

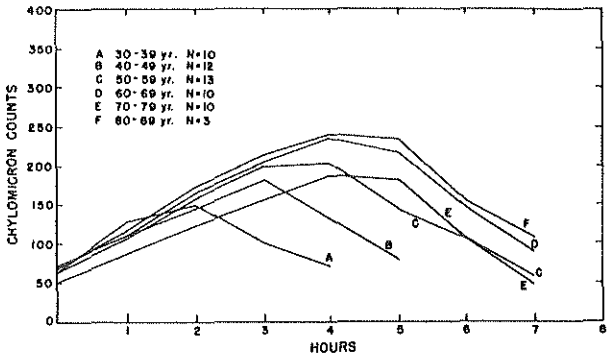


Figure 12. Average chylomicron counts per microscopic field at six consecutive decades of life at hourly intervals following a test meal containing fat (N=number of subjects)

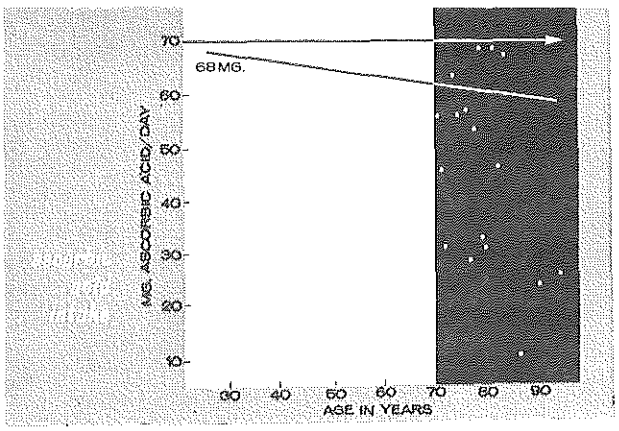


Figure 11. Changes in ascorbic acid value of self-chosen diets of 1,072 Iowa women with advancing age (Horizontal arrow, recommended allowance at age 65: Dots, mean ascorbic acid intakes at consecutive one-year age intervals)

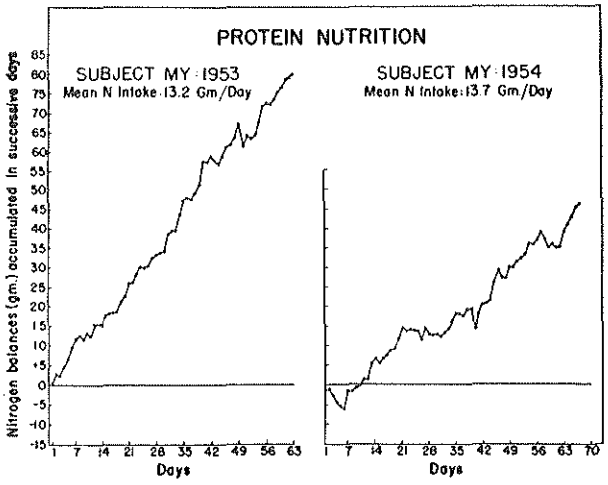


Figure 13. Nitrogen accumulated day by day from day 1 of test by a subject after increasing the protein content of her self-chosen diet

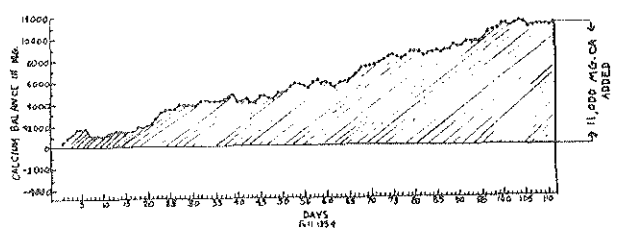


Figure 14. Calcium accumulated day by day from day 1 of test by a subject after adding milk to a self-chosen diet (average daily calcium content of diet, 1,300 mg.)

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LIST OF FIGURES

SOCIAL AND COMMUNITY ASPECTS OF AGING by Joseph H. Britton, Professor of Child Development and Family Relations, Pennsylvania State University.

1

A grandmother, writing in Vogue Magazine, said, "I'm glad I'm sixty . . . During the intermediate years," she stated, "I saw my progeny--those diaper-soakers, those thumb suckers, those oat-meal spitters--on to becoming shoe-scuffers, tooth-brace-wearers, car-poolers, telephone-monopolizers, blue-jean addicts, crinoline-swingers, diploma-clutchers, and then young marrieds and Pablum-pushers on their own." Note that this grandmother said, "I'm glad I'm sixty!" So this woman's years went by and added up, as do the years of other women, and men, too, and the life cycle goes on! So go the years of man.

When we speak of the years of man, we speak of aging. Aging, of course, begins at the moment of conception, and whatever influences life in the early years, or life in the later years, shows up in the process of aging.

We are all aware of the increasing attention being given to aging as a topic and to the aged as a group of people. Some might even say that the aged are one of our most serious "national problems." Most of us refer to the "aged" as them, but for the most part I am talking about the aging. That means us. You may recall Bernard Baruch's definition of old age, "To me, old age is always fifteen years older than I am."[2]

Evidence is all around us of new awareness, including national and state-wide conferences on aging, such as the one held by the American Home Economics Association last year and this very conference--many of which grew from the White House Conference on Aging held early in 1961. This spring in Pennsylvania, the Commission on Aging which, by the way, is a combination volunteer-governmental organization created to assist in carrying out the recommendations of the state White House Conference, is holding a series of regional meetings for discussion of progress over the last couple of years. These meetings were planned on the principle that a great many things can be accomplished on a community basis to assist directly and that through state-wide cooperation larger units may be involved as necessary.

Aging is a problem of modern man. Yes, there are a few Biblical references to the old, and some early writers have made comments about the last of life. About the time of the birth of Christ, the average life expectancy was 22 years, and by 1959 the average life expectancy for American babies was 69.7 years; for boys it was 67.3 and for girls 73.9 years.

The rapid increase in life expectancy since 1900 has resulted from the partial triumph over childhood diseases, infant mortality, and death in childbirth. Although the death rate has decreased, we need to remember that it has done so in spite of a considerable increase in diseases common to people in the

older age brackets--such old-age diseases as the cardio-vascular-renal diseases, and cancer. In a sense we have assisted people to survive infancy and youth so they can have the diseases of old age! And these ailments and what goes with them create some of our most difficult personal and community problems--problems I would like to examine more closely in a few moments. I should like to add, however, that we have done a better job alerting communities and leaders toward the physical and medical services and needs of older people than we have pointed up the social relationship needs of older persons. We have barely scratched the surface in our understandings of what successful social aging is and how to assist people in the process.

And, as to future life expectations, listen to this old German proverb: "The age of a wooden picket fence is three years; of a dog, three picket fences; of a horse, three dogs; of man, three horses." This schedule of three horses, or 81 years, for man is actually a bit more than the current life expectancy. However, this figure of 69 representing the life expectancy for infants born today, is about 20 years longer than the life expectancy for children born at the turn of the century.

A French naturalist, Georges Buffone, who studied the life-span of animals of different species found that the normal duration of an animal's life exceeds the period of its growth by an average of six times. Applying this formula to man and his skeletal system would mean this: since man's bones continue their growth until the age of 20 or 25, his normal life span should be about 120 to 150 years! That is about twice the Biblical three score and ten. Imagine! Retire at 65 and live that many more years! By this figure there could be six or seven or eight generations living at the same time. How is this? One might live to see his great-grandchildren's great-grandchildren! Now there is a population explosion!

And there are promising leads to this long future, for example, the work of Professor Henry Simms of Columbia University. Recent progress in the understanding of the role played by certain tissues in the stimulation and regulation of the body's inborn natural resistance to disease is showing that this resistance originates in, and is controlled by, the group of connective tissues, part of the body's "soft skeleton," known as the reticuloendothelial system. This system is a vast network, or reticulum, of cells that constitute the lining, or endothelium, of all organs such as the liver, spleen, bone marrow and lungs. Knowledge of the role of RES in the stimulation and regulation of the built-in timeclock which each of us apparently has may open the possibility of one of the most revolutionary developments in medical science. Knowing the way the reticuloendothelial system works may make it possible to regulate the rate of ticking of the biological clock by chemical means. This would mean that it may become possible to provide chemical equivalents of long-lived ancestors sometime after birth.[3]

The challenge that this kind of future holds for man, or at least some of mankind, underscores the maxim of the Gerontological Society, reminding us to "add life to years, not just years to life."

At this point in our discussion we could launch into a recital of the challenging problems which an aging population present to us. And there are many, on a personal and a societal basis. Let me emphasize, however, that what happens to one part of the population inevitably affects other parts, and that there are many changes occurring in modern life. It seems that about all we can depend upon these days is change! Earlier marriages than formerly and shorter years of child-bearing, along with longer lives, present adult men and women with years of life together as couples which they may never have expected. It makes available a great resource of persons freed from the responsibilities of child-rearing. The increase of widowhood and the common majorities of women, especially among the very old, imply many important things for families and communities. Changes in occupational roles, concomitant with mechanization and automation, affect the middle-aged and young, seem to stimulate mobility and, some say, increase the isolation of older people from their families. A young matron summarized and implied some of these vast changes and their effects upon people, "Gee, I worry about Mother. She's really too old to live by herself--even in her own small town. I'm so far away. We'd like to have her live with us, but here in the suburbs, with no other older folks around--our teen-agers and their gang of noisy kids --our small house--I just can't see that she'd be happy here."

In addition to these dynamic social changes is the stumbling block of our own attitudes regarding aging. It can be said that our society is one which traditionally has either ignored or looked unfavorably on old age. As a people Americans have put emphasis and value on persons and things youthful. In a practical way, when a choice must be made, most communities and their leaders feel their resources and energies must be directed toward children and youth. If you don't believe me, ask yourselves which would be more popularly appealing to the Kiwanis or Rotary or Lions: A project to collect used eye glasses for "little tykes" or for old people? A new swimming pool or homemaker services? From the hairdressing ads on TV ("Nobody but her hairdresser knows for sure.") one is taught that it is indecent and ungroomed and practically immoral to have grey hair and get old. Note, too, that in our culture we seem to be more unfair to women than to men in terms of aging!

Even those of us who are professionally concerned with older people and their needs occasionally let our stereotyped prejudices of older people show. As Benjamin Franklin said, "All would live long, but none would be old." When the chips are down, many of us still hold little belief in the creative potentialities of the older person.

Results of studies of the expected behavior of older adults are not surprising, then. When we ask older persons what they expect of themselves as successfully aging persons, and when we ask younger and middle-aged people what it means to age successfully, both groups tend to put the accent upon <u>youth</u>. In our own study of the social norms of residents of a small Pennsylvania community, data were obtained on what adults in the community expected of older people in the areas of living arrangements and family relationships, work and retirement, community participation, and in the manner in which personal

problems of older persons are to be solved.[4] We found that the underlying view on the part of older people themselves and younger ones for them was that the successfully aging person is one who is able to maintain his independence and self-sufficiency and who continues to maintain a high level of activity.

Indeed, one might suggest that according to these data the successfully aging old person is one who acts middle-aged, in the prime of life, rather than old! Note the apparent resistance to the stereotyped behavior that could be classified as "old." For example, in the area of living arrangements, interviewees believed that older people should live alone in their own homes--independent of the younger generation except under contingency circumstances. With regard to family relationships there were variations in the approved patterns, but there was stress on the autonomy of adult generations, shown by a kind of "live-and-let-live" attitude. The high value of activity was shown in the same community study by the expectation that older adults should play active roles in organizations.

Before we move on to some of the ways communities are using their understandings of older persons and their needs, let me summarize quickly the situation as I have outlined it.

1. The fact of aging is here to stay--more people are living longer and the immediacy and volume of their needs is apparent.

2. There is increasing pressure for services for the aged from local, state and national groups.

3. Generally, our concern for the physical needs of older persons overshadows our understandings and facilities for meeting social needs.

4. We cannot view older persons as an isolated group, apart from the vast and dramatic changes which are occurring in all areas of modern life.

5. Pervading our thinking is the cultural prejudice toward aging and our preference and allegiance toward youth. (Recall, however, what George Bernard Shaw said: "Youth is so wonderful it is a shame it must be wasted on the young!")

6. Data concerning the underlying desires of older persons as well as expectations for them by younger adults place high value upon their independence and self-sufficiency and upon a relatively high level of activity.

It seems to me that those who plan community programs need to keep these facts in mind and to capitalize on these notions, by planning programs which can assist persons to carry out their desire to be independent and self-sufffi-

cient. This means that we should give attention to the ways which will assist older persons as they may wish to continue living in their own homes, to continue looking after themselves in most areas of life, and that we imaginatively seek ways to do just this. One professional observer of American society, Robin Williams, has said that in America "to be a person is to be independent, responsible, and self-respecting, and thereby to be worthy of concern and respect in one's own right. To be a person, in this sense, is to be an autonomous and responsible agent."[5]

There are several ways in which communities over the country are assisting older individuals to continue being persons in this sense. Most of them will not be news to you. I regard them as "enlightened" in terms of this orientation to maintain personal integrity, and I think some produce real economies in the use of resources. This orientation presents a dilemma I wish to discuss later. At any rate, here are some examples which will show some of my own biases as well:

The policy of some county homes which permit individuals to come in during the winter months and return to their homes as able during the warmer ones; or, more generally, the use of facilities such as county homes as flexible living arrangements rather than a once-and-for-all-until-death-do-us-part commitment.

The programs of regular friendly visitors of clubs and churches which can assist older persons to maintain their feelings of belonging to the community.

The programs known as "homemaker services," which, by providing part-time or occasional full-time homemaking assistance in the home, can make it possible for older persons to manage to live and function more or less independently for a considerably longer time.

Community nursing services doing the same thing by giving part-time care in a crucial area of living.

The so-called "meals-on-wheels" program bringing a friendly visitor who carries a good hot meal each day to the old person living at home.

Some homes for the aged which have waiting lists in the local community "servicing" their waiting lists by a similar hot meal at the institution for those who can still live in their own homes and who can be assisted by a daily visit to the institution. Making the home for the aging a center for older people in the community may contribute, too, to the well-being of the full-time residents and make the transition from one's own home to the institution considerably easier. The home could provide "out-patient" care of certain kinds, thus extending their service and coping simultaneously with the "waiting-list problem."

Foster home care placement programs illustrate another way to keep older adults in some ways independent, and a tie-in of the programs with a county institution, for example, can have many advantages--keeping the old person a part of a family and a community, providing companionship and a personal relationship with some "supervisory" care. Foster home care programs need protection by law, I believe, plus supervision, to guard against exploitation and to effect good placement, just as these programs with children have needed such protection.

Informally, groups of older adults have formed "telephone chains" primarily of persons who live alone and can benefit from the security of feeling someone will be checking in on them each day; one senior citizens' group adopted this arrangement after one of their members lay helpless for several days from a fall in her home, and the police willingly work with this group checking out the occasional reports that someone has not answered his or her phone that morning.

Counseling services for older adults and their families can provide friendly places to "talk it out" and obtain professional assistance on a personal basis. Hence, in some measure they help older persons and their families to continue functioning. The help which is gained by exploring with a "neutral" counselor the interpersonal relationships which have developed over a lifetime may be significant. The notion that the whole family may be involved also is underscored by this illustration. The data available on the use of such professional resources by older adults suggest that older adults frequently need to be educated as to the value of such services; the data show that they use them when special point is made that the services are for old people, too.[6]

"Adult welfare programs," as they are officially called in Pennsylvania, are assisting some older persons to maintain independence and are enabling families to obtain better care for their older members in need. In Pennsylvania legislators realized the impossibility and the undesirability of adopting the concept of institutionalization wholesale for older persons, just as this concept is being discarded for children and for other persons. The reality is that other solutions have to be found. Recent legislation provided partial state aid to counties to employ qualified "adult welfare workers" (plus certain other types of employees).[7] In our own semi-rural county, this worker, now called the Director of the County Office for the Aging, has handled a great variety of cases. He helped an old man get the grates of his furnace repaired so that he could continue living at home; he has helped persons obtain employment; he has literally carried persons in for medical assistance; he has helped adults to obtain rehabilitative treatment; he has worked with personnel at state mental hospitals to effect better placement for some county residents; he has alerted church and service groups to assist adults in need; he has helped children to accept their responsibilities for their aging parents. Working with the county home, he has brought persons into it, has helped others who could to leave it, and we are sure that his services are paying for his salary by saving the county and its residents money and misery. For years we had had child welfare services in the county, but just recently have we had assistance for the variety of adults in various states of need.

In the few months this program has been in operation we have been impressed with the variety of adults in need, many of whom are not really old but seem to fall between the responsibilities of other agencies. Frequently they are persons who apparently feel they have no one else to turn to, but often they have been family members who are learning that it is not bad to seek professional help to assist them with their personal problems and that such help can assist in their fulfilling their own responsibilities to themselves and

their aging members. Frequently it is a matter of putting adults in touch with the services already available.

Thinking of the goal of independence and self-sufficiency in later maturity and old age, I would like to add my personal word of reinforcement to the idea of incorporating medical care into Social Security, because of my own experience and research with older adults. My opinion is based on this reasoning: Perhaps the most fearful thing in later maturity and old age is dependency--dependency which may result from prolonged life or, indeed, from a lingering death. Most ordinary living expenses are predictable for the individual. The character and expensiveness of the illnesses of the latter span of life are less predictable except, of course, that illnesses are longer and more expensive. These risks can be predicted on a group basis, however. To prepare for these risks during the working years and to share these risks with others seem to be the only reasonable solutions. This can be done through insurance. Social Security "insurance" provides an established mechanism whereby masses of workers in our country can insure, by their own contributions and those of their employers, their own independence in later maturity and old age. Thus the responsibility for self is kept to the individual in a manner like he prepares now for his retirement pension in a similar accepted pattern. I am told that group insurance plans, such as public employees' pension plans and Social Security, require that everyone participate because all must share the risks. I believe, therefore, that we ought to support legislation to make medical coverage a part of Social Security.

I might add that I think that for some time we shall have need, too, for assistance for persons like those generally eligible for the Kerr-Mills programs. As you know, these programs require state legislative action and appropriations to participate in this joint Federal-State program.

Other examples of action programs might be cited, in line with the principles I listed--emphasizing the right of aging persons also to their share of what modern society can provide. Housing programs which consider the varieties of aging persons and help them remain in the stream of life could be cited. Adult education programs assisting persons to think through their own problems and to make preparations for the later years could be cited also. While we would like our whole population to look more favorably on old age, at least we must help the decision makers of local, state and national levels to look intelligently at the problems of an aging population. Frequently this involves "political activity," and legislators at all levels must know how individual citizens feel if they are to do their jobs effectively.

Now we all know that unless one dies suddenly that sooner or later each of us becomes dependent upon others, often for extended periods of time and in the most intimate matters of living. This presents the dilemma which I mentioned earlier. The dilemma is this: The desire of all of us that aging persons maintain their independence and self-sufficiency gets in our way, for many older people regard dependence as a capital sin. Their unwillingness or their delay in seeking or accepting help, be it medical or otherwise,

becomes a hazard to their health--physical and mental. The time lost in preventive treatment and the demoralization they suffer seems to intensify the condition needing remedy or prevention. The standards or mores we hold for successful aging, then, seem to hinder us or prevent us from doing so! I would like to expand on this point and interpret some data we have on dimensions of adjustment of older adults.

Generally when the man or woman on the street describes the person who is aging "successfully," he describes the busy and active individual. Typically he refers to those who, in their later years, are busy, involved, engrossed in lots of things--in clubs, with hobbies, family, friends, organizations, etc. This person is not sitting around moping--he's into things, he's active!

As a matter of fact, this is the glorified middle-class pattern of earlier years: The Young Man of the Year is one whose evenings are filled with meetings; he is enthused with his job; he is a "good" father and husband; he has time to help with the boy scouts, his church, the bloodmobile, and the swimming pool committee. The Mother of the Year is similarly involved; somehow she manages to do many things well. I would bet that if we chose the Retiree of the Year or the Grandmother of the Year the same success pattern would be used.

Of course, these evaluations tell us as much about the persons who make the rules for success as they tell us about the people who are chosen. They show us what is valued, what is important--to the persons making the rules.

As I said earlier, we have studied the question of social norms in one small Pennsylvania community. We asked adults of all ages questions about what they thought older people should do in terms of living arrangements and other areas of life. The predominant expectations expressed in our data suggest the standard of an older person being independent, active, involved, and self-sufficient as long as possible. To meet this standard requires DOing. "Work as long as you can," they said. "It's best to keep your feet under your own table." "Older people ought to get into things in the community." One man at 75 said, "When you're old, you should just keep going. Keep in circulation. It's better for us to keep moving--that is what the Almighty God intended us to do--to use our bodies."

If some measure of activity level is used in evaluating success, we reward certain patterns of aging, eliminating the possibility that there may be other patterns which could be regarded as successful. If successful aging equals activity, what is left for the very old person who cannot DO?

In our research we did attempt to evaluate the successful adjustment of the older residents of the community, using several standard psychological tools.[8] Our interpretations of the statistical results revealed two dimensions similar to those expressed by the norms of the community. First, the dimension of activity: Success or competence in old age by this standard means being active. Second, the dimension of social involvement: Success here means being with and liking to be with others. Both of these dimensions involve doing.

Using these measures of success rewards the able, automatically eliminates or penalizes old persons who can no longer do. And we are saddened, and in that sense they then are no longer successful. If they cannot do, they are not competent; they are no longer persons in the terms we described earlier.

Our data carried a suggestion of a third factor which seems to be rather independent of the other two, one we have called a dimension of composure-serenity-integrity. This dimension involves being rather than doing. (All of us have heard of cultures which permit the very old to be if they wish without having to do. I wonder to what extent contemporary American cultures do.)

This composure-serenity-integrity element is exemplified, I think, by these modest persons whom we interviewed in their late seventies:

Q. "How do you feel about your success and happiness at this time in life?"

A. "All right. I've had my ups and downs as we all have. It's hard to find the fellow who says life is perfect . . . I can't keep on doing work that I once did, but I can be thankful. My children have done all right--all working. I have ten grandchildren; my oldest grandson is finishing school, has a good job lined up, will get married this summer . . ."

To the same question, another woman answered:

"I've been successful and happy, with the exception of the loss of loved ones. But I accept that as part of the Lord's will . . . I'm really healthy and happy with my lot. I have pleasant surroundings. I'm not as able to go as I once was and enjoy things. It's a part of old age, I guess; I've had a good life."

Their replies and responses to other measures employed in our study suggest an inner strength or personal adequacy that is unrelated to their present capacity to be active and involved. It reflects a kind of contentment, a satisfaction that means "I'm successful. I'm happy." Life has meaning. This kind of individual seems to be a person who is composed, serene, and integrated. Perhaps this third factor is most characteristic of the very old, but our work has not given us the answer yet.

These components of successful aging seem to tie in with a theory expressed by two research workers in the field. Cumming and Henry[9] have hypothesized that the person who is aging successfully is one who gradually withdraws or "disengages" himself from the activity and involvement of earlier years. He becomes selectively less active. These writers believe that society encourages withdrawal in a number of ways, for example, by retiring older workers and encouraging older members of organizations to become honorary or emeritus members; in fact disengagement is a mutual process of withdrawal.

In our research we recently returned after a period of six years to the study community. Again we visited our older subjects with interviews and tests. Those who had survived the years were then over 70 years of age. The question is one of the impact of change in the same individuals over time. Perhaps we shall learn what happened to active persons as they age. Will they become the composed-serene-integrated ones?

The interpretations I have made of our research data should indicate to you that I think we need to modify our concepts of successful aging. The current ones seem to stress the middle-aged dimensions of activity and involvement. These should be extended to include the inevitable withdrawal or disengagement which comes if one lives long enough.

Perhaps we need to educate ourselves in terms of our continued inter-dependence rather than emphasize the great value of personal ability to be active and independent. Re-emphasizing our dependence upon our fellow man throughout all of life may enhance our morale at the last of life, when dependence does become necessary. By such modifications in expectations and in personal aspirations we might provide success for the varieties of old people and the varieties of situations involving aging, particularly among the old.

I have noticed that the successful conference speaker often closes by quoting an authority who can offer inspiration or, lacking that, a diversion from the weight of the topic. How about this Aesop fable, from a new translation from the Greek by Denison Hull?[10]

The Man and His Girls

Once on a time there was a man
Whose life was in the middle span;
He was not young, nor old yet quite.
He mixed his black hair up with white,
And had the leisure night and day
For revelry and love and play.
He loved two women, young and old.
The young girl saw him young and bold;
The older woman saw him sage,
A fellow for her in old age.
And so the maiden in her prime
Pulled out his white hairs every time
She found one blossoming--alack!--
The old one only pulled the black,
Until between the two the pair
Had made him bald by pulling hair.

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