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Marian L. Watson  
*Loyola University Chicago*

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**A QUALITATIVE STUDY  
IN MEDICAL SOCIOLOGY AND GERIATRIC MEDICINE:  
CHALLENGING PERSPECTIVES, PRACTICES, PROGRAMS, AND SERVICES  
FOR SUCCESSFUL AGING IN THE TWENTY-FIRST CENTURY**

**Volume I**

**by**

**Marian L. Watson**

**A Dissertation Submitted to the Faculty of the Graduate School  
of Loyola University Chicago in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy**

**May**

**1992**

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Medicine is in the midst of a period of transition and challenge not unlike the situation it faced one hundred years ago. In response, it is again reaching outside itself, but now, secure in its century-old partnership with the natural sciences, it seeks the added collaboration of the behavioral sciences.

Samuel W. Bloom  
The Doctor And His Patient, 1963, p. 7

## ABSTRACT

In large numbers Americans are living longer and healthier lives yet they are still encumbered with one or more chronic conditions. A major task in this dissertation has been to research the health and social processes of healthy, active, and functionally independent older Americans to determine if prevailing geriatric practices, programs, and services will contribute to or deter successful aging in the twenty-first century. This was accomplished by employing the triangulation methodology using grounded theory, focus group, and matrix display research in the context of medical sociology and geriatric medicine, to study older Americans and the geriatric professionals with whom they interact to help manage the quality of their lives - geriatricians, gerontological nurses, and geriatric social workers.

The results from this research has shown that society's stereotypic attitudes and misconceptions about aging transcend into the nation's health and social practices and policies. This, in turn, affects the quality of life of older Americans. For example, successful aging today requires a greater partnership with psychosocial services, but yet such services are minuscule when compared to the medical regimen; Medicare programs initiated three decades ago reflect programs and

services intent on curing diseases rather than preventing and managing the chronic conditions that afflict older persons; physicians' lack of advanced knowledge in the often subtle and complex chronic conditions of older persons can lead them to dismiss or misdiagnose some treatable conditions as a natural consequence of aging; and, finally, due to the culture of men, older men often do not adopt healthy lifestyles or use available illness preventive services, and hence, this may be one explanation for their shorter lifespans than women.

In brief, this research indicates that without an immediate reformation of this nation's attitudes on aging, and a change in the culture of men, the successful aging of twenty-first century older Americans will be in jeopardy.

## PREFACE

This researcher can hardly be expected to have an expert's knowledge in geriatric medicine, nor the intuition necessary to decide what value to place on some aging theories or epidemiologies, particularly since so many differing values are given to physiological versus psychosocial factors in this field. It would be greatly appreciated if the experts in geriatrics and related fields would judge the usefulness of this research study by the data which it affords from the perspective other than his or her specialty, and not by the lack of highly specialized information in which only he or she are interested or familiar, and would have little or no occasion to consult the other discipline. Should such specialists wish to expand upon data with which they are familiar and with which they believe others less specialized will benefit, then research of this type can be improved in succeeding studies.

Readers of this dissertation will find a wide variety of topics, ranging from controversial techniques of geriatric health and social intervention to philosophical assumptions that inform policy, program, and service goals. It is hoped that this dissertation will be of value as an aid in answering some of the confronting physiological, psychosocial, behavioral, and policy issue questions in geriatrics, and an inspiration in confronting the challenges of geriatrics in the twenty-first century.

## ACKNOWLEDGEMENTS

Seeking to understand and explain human action and its relation to culture, attitude, and behavior in a natural science framework can be a complex, engaging, challenging, and intellectually stimulating endeavor. This research study transcended the rigors of a formidable investigation, became a pursuit of excellence, and was successfully accomplished through the unfaltering support of my committee, Dr. Steven I. Miller, Dr. Marcel A. Fredericks, and Dr. James R. Webster.

Sincerest appreciation is extended to the older men and women, geriatricians, gerontological nurses, and geriatric social workers who gave willingly of their time to this study, and shared with me the circumstances that influence and guide their realities. I treasure their contribution to a better understanding of older Americans today, so that as a nation we can facilitate the successful aging of older Americans in the twenty-first century. Appreciation is likewise expressed to the American Geriatrics Society, American Medical Association, National Association of Social Workers, and the U.S. Bureau of the Census-Chicago Office for their valuable assistance.

Finally, my family deserves a special acknowledgement. It is through their love, generosity, encouragement, and strong belief in outstanding achievement that I have been able to realize my own potential in reaching higher goals. I dedicate this dissertation to my mother, Mrs. Mary E. Watson, and sisters, Dr. L. Marilyn Watson, and Ms. Ruby W. Jackson.



## VITA

The author, Marian L. Watson, has an extensive academic and professional career in research, health care, and business. She received her B.S. degree in Chemistry at Tennessee State University in Nashville, TN, where her final senior project in partial fulfillment of the requirements for the degree was The Study Of The Behavior Of A Cell Composed Of A Hydrogen Electrode Immersed In Solutions Of Various pH Values When The Solvent Was A Dioxane-Water Mixture.

She pursued her interest in research after graduation as a research chemist at Gillette Research Laboratories in Chicago, IL. She performed exploratory research and development, developed technical instruments for measurement, and presented new product and instrument concepts to executive management for their market considerations. When the laboratories moved to Boston, MA, she decided to remain in Chicago to cultivate her interest in health care. She pursued a health care career by becoming first a senior systems analyst at the Blue Cross and Blue Shield Association where she provided national consultative support to Blue Cross and Blue Shield Plans on issues of policy, procedures, regulations, and performance standards, and then she progressed to the level of consultant where she conducted national health care software systems workshops for the Long-Range Systems Planning Division. Thereafter, she worked at the Health Care Service Corporation as an associate management consultant/manager of 10 to 20 project leaders and systems analysts in a matrix environment where she identified and directed corporate management and performance improvement opportunities. The apparent link between research, health care, and business at this firm contributed to her interest in business relationships more acutely pursuant to research and health care.

Watson broadened her health care and research experience at two "big eight" accounting firms in their national health care divisions. As a director of national health care communications at Peat, Marwick, and Mitchell Co, she provided nationwide staff and client multi-hospital systems, hospital, and medical group practice support on issues and trends in

health care. She was also editor of a national publication, Dimensions in Health Care. Then, as director at Laventhol & Horwath, she directed national health care communications with a focus on geriatrics, and supported public relations, strategic planning, and major client proposals. She directed a national nursing home survey report, a national retirement center annual survey report, and created a national publication there, Future Directions In Health Care, of which she was editor. These career opportunities motivated her academic pursuit of knowledge in philosophy and other branches of science.

She obtained a M.S.Ed. degree at Northern Illinois University in Foundations of Education, a Ph.D. degree at Loyola University Chicago in sociological foundations (major), medical sociology (minor), and qualitative research (minor), and is a doctoral candidate in Adult Education at Northern Illinois University. Her professional accomplishments include: patents on technical instruments for measurement; fellow with the American Institute of Chemists; outstanding college student of America; outstanding young woman of America; Kappa Delta Pi international honor society; and Phi Delta Kappa professional education fraternity.

She has recently been a graduate assistant at Loyola University of Chicago where she developed two Chicago Local School Council educational training video tapes on Principal Evaluation and Improving Student Learning. She is currently an independent management health care consultant and is completing her dissertation at Northern Illinois University.

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**CHAPTER I**  
**INTRODUCTION**

This dissertation research has been a collaborative endeavor in medical sociology and geriatric medicine. The goal has been to discover if the prevailing geriatric practices, programs, and services in the United States meet the needs of contemporary older Americans aged 65 years and over, who are experiencing increasing longevity, accelerated population growth, and bimodal shifts in health and social status. This research was spurred by the more urgent question: Will the prevailing geriatric practices, programs, and services meet the needs of the twenty-first century older Americans whose population the 1990 United States Bureau of the Census has projected to be at least double that of today by the year 2030, and whose health status, on average, is expected to shift further from the frail to the functionally-independent while they are still encumbered with one or multiple chronic diseases?

Soon after the first decade of the twenty-first century, the over 70 million post World War II babies born between 1946 and 1964 ("baby boomers") will begin entering the ranks of older Americans. By the year 2030, according to the 1991 United States Census Bureau projections, the baby boom generation is expected to escalate the current all-time high



median age of 32.1 years in the United States to 42 years, and cause the age 65 and over population to more than double. Moreover, the older population is shifting from the frail and dependent to the active and functionally independent, although most are still plagued by one or multiple chronic conditions, i.e., diminishing vision, hearing, and kidney function. Based on these shifts in demographics and health status among older Americans, it is imperative that the prevailing health and social programs and services for older persons be examined for their appropriateness in the twenty-first century.

The highly populated baby boom age group can be and has been overwhelming. In the 1950s and 1960s, this age group swelled the public elementary and secondary schools to the extent that prefabricated separate classrooms had to be quickly built to accommodate their substantial numbers. Between the 1970s and the 1980s, they overburdened the colleges and universities, leading to overcrowded classrooms, campus expansions, and off-campus sites. Beginning in the year 2011, this same age group will inescapably converge on the ranks of older Americans, and the U. S. Census Bureau (1980) projects that their influx will lead to an overwhelming senior boom by the year 2030. The implications of these demographics for geriatric programs and services in a society with declining federally supported resources are enormous. It will involve medical, social, and economic dilemmas that will be impossible to ignore.

The awareness of increasing longevity became evident by at least the year 1940 when the older population in the United States, persons of 65 years of age and over, had increased to nine million from the three million in 1900 (U. S. Census Bureau, 1980). It increased to 28 million by 1985, 31.242 million in 1990, and based on the 1990 Census projections, this age group will reach 68.1 million by the year 2040. This estimate is based on the baby boom age group expanding the ranks of the 65+ age group in the twenty-first century.

Americans, in large numbers, are now aging into their eighties, nineties, and beyond. However, because of the bimodal shifts in health status occurring among their ranks, that is, wide ranges in diversity from the active, functional, and independent to the disabled, dysfunctional, and dependent, their overall quality of life is in question. For some older Americans, aging has become an expansion of their active and functionally participatory lives. For many others, the extended years are a time of uncontrolled pain, social isolation, hopelessness, and despair.

At first glance, one would associate the morbidity modality with the impoverished, illiterate, uneducated, rural, and disadvantaged older Americans. Yet, more older people in America than we wish to acknowledge lack adequate access to necessary health and social services for asunder reasons. For example, many may lack access to health services that are capable of recognizing the more subtle and complex chronic

conditions that exist among older Americans today, or they may lack access to health and social services that encourage preventive disease behavior so that they are able to participate in the improvement of their own quality of life. Literature findings for this research study indicated that the quality of life services which older people receive are predominantly medically-oriented. That is, they are related more to the concept of curing illness and disease, an acute care regimen that is common to younger people, than control and risk reduction, a regimen more appropriate for older persons who commonly experience chronic diseases, dysfunctions and disabilities. These quality of life dilemmas for older Americans have served to influence a growing concern for the health and social needs of this ever increasing population.

Despite the progress made in extending life for older Americans, and the functional independence gained, chronic diseases and limitations in activities of daily living still prevail among older persons. Recent studies seem to indicate that while older Americans may have been living longer, they have also been affected by aging in subtle and complex ways. For example, Beck (1989) relates that stress in older persons is likely to produce decompensation in the most vulnerable body system and generate functional loss (failing to eat or drink, falling, urinary incontinence, dizziness, acute confusion, new onset or worsening of previously mild dementia, weight loss, and failure to thrive) rather than specific or

classic disease manifestation. Beck further states that difficulties in cognition, mobility, and continence are frequently the first or major signs of chronic disease occurring in organ systems remote from the obvious weak link. According to Beck and other specialty trained geriatricians, the above diagnosis is common to geriatrics, but is atypical in acute care. And yet, the literature suggests that such common chronic diseases and diagnoses are not on the checklists of the majority of family practitioners and primary care physicians who treat the majority of older Americans. Based on these findings, some of the questions generated are:

- (1) Are the family practitioners and primary care physicians sufficiently trained to treat older Americans? And,
- (2) Are the majority of older Americans at-risk in terms of having access to quality health care?

To question (1) some physicians might answer yes. They would argue that although some family practitioners and primary care physicians may not have access to the latest in geriatric methods and technology, their Internal Medicine education and training in the function of the human body, complemented by geriatric experience gained in residency and in practice, is sufficient to meet the needs of a majority of older Americans. In response to question (2), these physicians would answer no.

Others practitioners might disagree with this group's response to questions (1) and (2). They would argue that

since geriatrics is taught as a separate study in only 13 of the 126 American accredited medical schools (1991 Liaison Council on Medical Education), and because geriatrics is generally practiced by family and primary care physicians in isolation, it is impossible for them to be sufficiently erudite in geriatric medicine without additional knowledge about the degenerative aging processes and psychosocial needs of aging. They would argue that just as the growth and development of the child requires specialized knowledge above and beyond the understanding of the "normal" human body functioning, so does degenerative aging. This group's response to question (2) therefore would be, it depends. If the family practitioner and primary care physician seek additional training or subscribe to the latest geriatric findings in literature, their older patients' may receive quality care. Otherwise, if they do not, their older patients may very well be at-risk.

Beck and his colleagues (1989) promote a reformation of geriatric practices. They promote the control of chronic diseases where possible; a reduction of the risk factors that can cause morbidity; maximization of activities of daily living; and the integration of health and social services to increase the overall quality of life for older Americans.

The literature review for this dissertation study indicated that, to date, there has been a lethargic shift in the way geriatrics is regarded and practiced in this country,

despite the evidence of an increasing older population. Until very recently, aging research and geriatric medical education have been minimal, even though traditional theories on aging were consistently debated and debilitating chronic diseases were becoming more widespread. These findings indicate that the nation's geriatric practices, programs, and services are not keeping pace with the needs of older Americans.

In light of the literature findings, this research has been an attempt to reveal some of the short-term and long-range consequences for the over 60 million older Americans in the twenty-first century. Yet, applying immediate solutions to the complexities of twenty-first century aging may not be easy since so much depends on contemporary aging research, and because many chronic conditions associated with aging are complicated by multiple disorders and ageism in society. A frequently quoted story captures the dilemma:

A 102 year old man complained to his physician about pain in his right knee. The physician dismissed it. "What can you expect at 102?" But the patient retorted, "My left knee is 102 years old, too, and it doesn't hurt." (Butler, 1975, p. 182)

Aging is enigmatic. It is inevitable. To distinguish the realities of aging from the stereotypes and fears surrounding the aging process requires an understanding of the biological, sociological, behavioral, and psychological changes that frequently occur during the life cycle. It requires: an understanding of the "normal" changes to be expected in human growth and development; an understanding of

the changes that can occur as the various organ systems gradually lose efficiency and slow down, which increases vulnerability to chronic diseases; and, an understanding of how a lack of knowledge about aging can impact physical, mental, and emotional functioning, and social interactions and behaviors. As life expectancy increases and a larger proportion of our population faces chronic conditions that limit the activities of daily living, an increased understanding of the dimensions of aging and the factors which affect aging are the ultimate solution to improving the overall quality of life, a subject popularly discussed today.

Despite the medical advances in sharply reducing heart disease and stroke (Technology and Aging in America, 1985), chronic conditions still plague a great majority of the older population: arthritis (46 percent); hypertension (37 percent); hearing impairment (28 percent); and heart conditions (28 percent) (U. S. Senate, Special Committee on Aging, 1984). Furthermore, there is a growing concern among interest groups, policymakers, and older Americans for accelerating costs and lack of access to health care. These issues characterize health policy, reimbursement, and philosophical debates.

Learning more about aging may not only strengthen our insight into how to improve the process of aging but may also help to dispell some of the misconceptions about aging in the interest of better social status for older Americans. For example, an older person's misplaced pessimism about aging

often gives rise to their dismissal of controllable and preventable chronic conditions as a function of just getting old. Furthermore, even many of today's health professionals dismiss many functional limitations as a natural consequence of aging (Berg & Cassells, 1990). Understanding the processes of aging, hopefully, will allay many fears and stereotypic attitudes about the dimensions of aging.

No aspect of aging is more alarming than the thought of the degeneration of the body, the mind, and the social role in society. However, aside from the fears of illness and role loss, there is also the psychosocial fear of losing independence and economic security. Resolution of these fears involves the shared concept of public and private geriatric programs and services, whose purpose is to address the health and psychosocial needs of older Americans. The comfort level in living into old age in the twenty-first century, it seems, will depend upon the extent to which geriatric practices, programs, and services will meet the needs of the majority of older Americans.

The potential doubling of the older population in the next 50 years inspires a closer look at the structure, operations, and practices of the prevailing geriatric programs and services. For example, Kane, Ouslander, and Abrass (1989) assert that Medicare, the government subsidized geriatric program, does not cover several services essential to older person functioning, such as drugs, eyeglasses, hearing aids,



and preventive services. Not suprisingly, therefore, the life conditions of older persons depend on their socioeconomic status, particularly because older persons must also share in the cost of their governmentally subsidized care.

Throughout this dissertation, the differential impact of geriatric practices, programs, and services, will be identified, with two chapters, Chapters II and IV, focusing specifically on such differences. Each of these chapters integrates discussions of policy and practices, with Chapter IV providing theory a result of the perspectives of the people involved in the practices, that is, the perspectives of older persons, geriatricians, gerontological nurses, geriatric social workers, and medical and social organizations.

### **Purpose of the Study**

This dissertation study emerges from concerns that the prevailing geriatric practices, programs, and services do not meet the needs of the more active and functionally independent older Americans who are now experiencing increasing longevity and bimodal shifts in health status.

There are many older people today who are active despite their years. There are also a substantial and growing number of them who are at risk of developing, or who already suffer from uncontrolled multiple chronic conditions that limit their abilities to function actively in the social world in which they live. Because of these changes, geriatric practices,

programs, and services that were once appropriate to the field and which have become increasingly out-of-date can no longer be ignored. Hopefully, this research, which takes a look at geriatrics from both the psychosocial and medical perspectives will direct its attention to all aspects of aging in the interest of contemporary aging. In addition, the results from a combined study of medicine and sociology will hopefully cause changes in the field in response to many of the distressing problems plaguing geriatrics today. For example, questions such as:

- What is the impact of social isolation?
- What is the effect of social epidemiologic variables?
- What are the benefits of high-technology screening and treatment for older persons above a certain age when life-span has not been appreciably extended?
- And, what are the repercussions of fragmentary and non-integrated medical and social services?

This study seeks to determine if such concerns are credible. Certainly, this researcher hopes that this study will improve on the meaning, understanding, and explanation of which geriatric practices, programs, and services will best work in the interest of the sizable population who will be joining the ranks of older Americans in the twenty-first century.

This study addresses many of the medical and psychosocial issues of contemporary geriatrics. In support of this, the research attempts to identify what integrated health and

social services will best fit the needs of the more active and functionally independent older Americans. In this regard, this study investigated the perspectives of active and functionally independent older Americans, aged 65 years and over; the perspectives of various classifications of geriatricians; the perspectives of gerontological nurses; and, the perspectives of geriatric social workers.

In summary, this study attempts to clarify the hypothesis that prevailing geriatric practices, programs and services do not synthesize all dimensions of aging sufficient to meet the needs of the majority of contemporary older Americans. The investigation involved a collaborative endeavor between medical sociology and geriatric medicine, both relatively new fields, to support these compelling, potentially crisis proportion issues.

The methodological procedure selected for the study was triangulation. A multiplicity of research strategies was expected to advance a clearer understanding of aging and its degenerative processes; provide insights into the social realities of older Americans and the professionals who treat them; and, increase knowledge of which health and social services would be most appropriate for the majority of twenty-first century older Americans. The multiple methods include: grounded theory, the primary method; focus group research, the secondary method; and, matrix display, the method used to enhance the validity of research findings, aid

in the elimination of bias, and help in understanding competing theories.

Because of the dynamics in the subject variables, particular caution was exercised in interviewing the active and functionally independent older persons, the diverse mix of geriatricians, the gerontological nurses, and the geriatric social workers. The objective was to silently observe the behaviors and actions of the different cultures, while also soliciting their perspectives of their individual realities. This interpretive approach helped in getting at the meaning and understanding of the study environments.

If this dissertation achieves its intended goal, a team approach between the medical and sociological professions will be more widely recognized as the most appropriate approach to sufficiently manage what at times can be conflicting diagnostic choices. One challenge that this study has tried to confront has been to provide plausible alternatives and strategies for health and psychosocial services that will provide older Americans the best possible quality of life now and into the future. Optimistically, such efforts will help to strengthen our knowledge and understanding of this age group, challenge us to dispell the myths and misconceptions society has about older individuals, and lead us to create solutions to the subtle and complex problems of this steadily increasing population. An addendum to this optimistic view is the hope that an improved knowledge and understanding of aging

will elicit an efficient and cost-effective health care financing system to support the needs of older Americans.

### **Major Themes In This Dissertation**

Chapter II provides a review of the related literature on aging and the allied health and sociological dynamics involved. It presents: (1) an historical and futuristic perspective on the dimensions of older Americans; (2) the social theories of aging and the social consequences of biological aging; (3) the paradigm-like dimensions of normal aging and the chronic conditions that often lead to disabilities and dysfunctions; (4) geriatric practices, programs and services that impact the quality of life of older persons; and (5) the major factors that can affect the health of contemporary older Americans.

Chapter III details the methodology employed in the research. That chapter presents the research methods utilized, and defines the approach, sample selection, sample size, data collection, and data analysis. It discusses the guiding principles for the structure of the subject interviews, and the issues of delimitations and limitations of the methodology.

Chapter IV presents the results of the investigation. The research findings are discussed in detail, and are often explored with reference back to the literature review in Chapter II, and methodology in Chapter III.

Chapter V presents the implications of the research study, and determines the action towards practical solutions to the research question: Do prevailing geriatric practices, programs, and services meet the needs of the more active contemporary older Americans who are now experiencing increasing longevity and bimodal shifts in their health status? In this chapter, there are also recommendations for establishing an interdisciplinary team approach in support of a wide-based system of geriatrics for older Americans. These recommendations are provided to foster support for the urgent proactive measures needed to meet the demands of near-term geriatric goals - providing high quality health and social services for older Americans who will predominate as health care consumers in the twenty-first century.

This dissertation research study is brought to closure with a summary discussing the significance of this study, and the impact that the "baby boom" cohort will have on geriatric practices, programs, and services beginning soon after the first decade of the twenty-first century. In addition, this summary includes a philosophical discussion on the search for order in classifying, educating, managing, and practicing geriatrics, in the interest of necessary and sufficient geriatric health promotion and disability prevention in the twenty-first century.

## CHAPTER II

### REVIEW OF THE RELATED LITERATURE

Aging in the last half of twentieth century America has undergone an historic radical change. Contemporary older Americans are living longer than ever before, their population is rapidly increasing, and they are healthier, more active, and more functionally independent than any other older generation in the history of the nation. The "baby boomers" who will soon become "senior boomers," (babies born between 1946-1964), will shift the demographics toward an unprecedented aging society, and as a consequence, older Americans will have a serious impact on the health, social, and economic dimensions of our society. Aging today is characteristically unique. Technological advancements in health care since the middle of the twentieth century are transforming America into an aging society, while paradoxically, the traditional health care paradigm of "cure" (a medical regimen better suited to the young) and societal misconceptions about aging persist despite the aging transformation.

For various reasons, it has been difficult for American health care policies and programs to keep pace with the demographic realities. As a larger proportion of our

population grows older, the medical model for care and treatment, the governmental social and health benefit systems, and the health policies and legislation which affect older Americans are becoming both overextended and out-of-date. By the year 2011, the year that the baby boom generation will begin to deluge the governmentally defined old age of 65 and dominate the old age culture and society, America will be forced to either change its social and health care policies, legislation, and focus, or the nation will collapse under the pressure of this more highly educated, socially conscious, politically astute, and health informed future senior boomers.

There is much that is still unknown about the nature of aging despite the four to five decades of increasing longevity, and likewise, increasing predominance of chronic conditions, dysfunctions, and disabilities occurring among contemporary older Americans. As a result, our biological, social, and behavioral patterns of life, are being increasingly altered, and these dichotomies are already beginning to throw our health networks and interactive social systems into a veritable tailspin. By the year 2011, if health and social professionals do not begin to make a difference in the way health care is practiced and managed in the eclipse of this century, America will repeat the inescapable crisis of overburden which was present in the educational system in the 1950s, 1960s, and 1970s. These



conclusions are based on findings from a literature search on various aspects of aging in contemporary America.

This chapter presents an historical perspective on the dimensions which directly or indirectly influence aging in America. It begins with the dimensions of past and present older American demographics and projections for well into the twenty-first century, and includes societal attitudes that often influence the quality of life of older Americans.

The historical perspective continues with a focus on the social theories of aging, and the social consequences of biological aging. This dimension includes the major categories of: Physiological Aging; Social and Behavioral Aging; and, Psychological Aging.

The paradigm-like dimension of the aging process is discussed next. It advances from normal aging, through disease development, and ends with a discussion on the chronic diseases that often lead to death.

A review of geriatric programs and services which impacts the quality of life for older persons follows. This review covers the governmental and community programs and services, as well as programs and services outside of the United States.

This chapter is brought to closure with a discussion on the factors that can affect the health of contemporary older Americans. It is included to emphasize the effects of culture and human behavior, the value of healthy lifestyles, and the impact of many programs, services, policies, and practices.

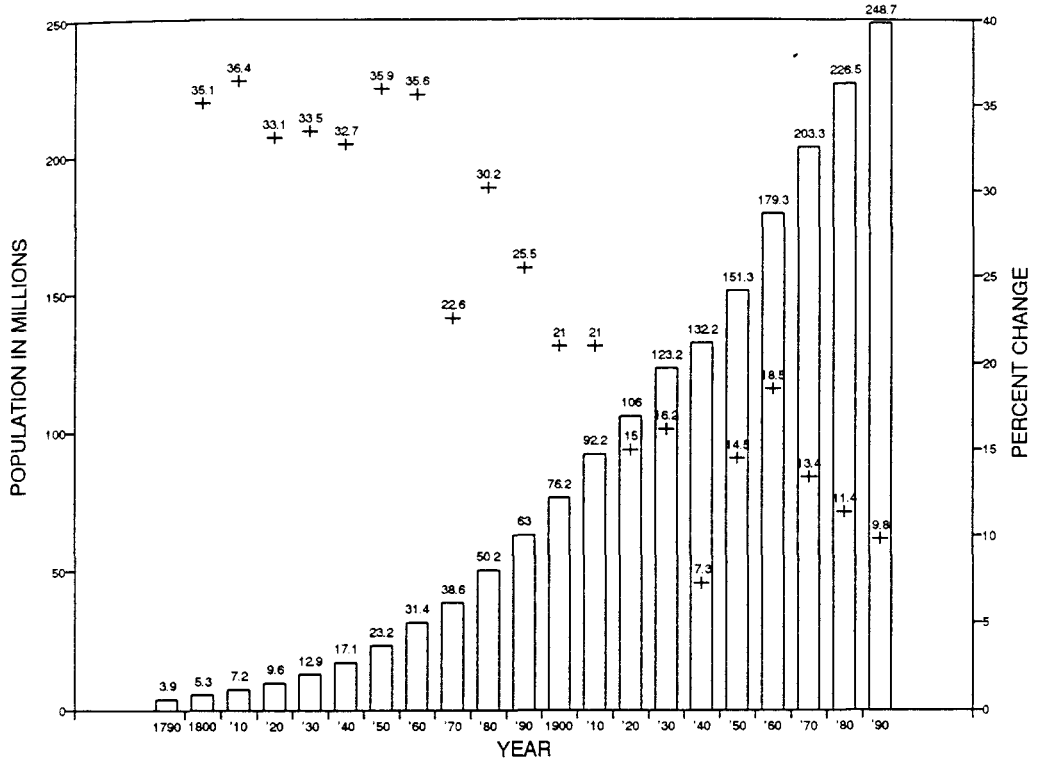
## **The Dimensions Of Contemporary Older Americans**

The nation is witnessing an unprecedented populace of older Americans. According to the United States Bureau of the Census (1991), people aged 65 years and over account for about 12 percent of the current population, and the ranks are projected to reach at least 23 percent by the year 2040. Of course, these projections do not take into account potentially new diseases that could differentially increase mortality risks for men and women. For example, Hooyman & Kiyak (1991) postulate that if a cure for Acquired Immune Deficiency (AIDS) continues to be a fatal disease which infects younger men more than women, there could be a greater mortality differential between the sexes. But, on the other hand, death rates due to hypertension, heart disease, and other chronic diseases have already started to decline (Barrow, 1989).

Paralleling the population growth in America is an overall increase in life expectancy. In 1900, life expectancy at birth was 47.3 years on average, and by 1940 it had increased to 62.9 years (U. S. Census, 1988). Today, 1991, it is 74.8 years (U. S. Census, 1991). In other words, women who lived to age 45.3 years and men to age 46.3 in 1900, and 65.2 and 60.8 years, respectively, in 1940, could now expect to live to age 78.3 years and 71.3 years, respectively, today. The U. S. Census Bureau (1991), on average, projects that life expectancy will increase from the current 74.8 years to 77.6 by the year 2005, and to 81.2 years by the year 2080.

Projections by the United States Bureau of the Census (1988) suggest that by the year 2050, particularly with the declining fertility rates since the late 1950s, the age 65 and over population as a whole is expected to far outnumber that of teenage children. As time, technology, and health innovations have progressed, an ever-increasing percentage of the American population is living beyond the age of 65 years. Figure 1 displays the U. S. Census Bureau data for the U. S. population growth rate since the history of the census. You will notice that the numerical growth rate in the 1980-1990 decade was 22.3 million. That is the second lowest population growth rate by percentage change in census history. It is exceeded only by the 7.3 percent increase of the Depression decade of the 1930s when the rate of childbearing dropped close to two births per woman and net immigration from abroad was negligible (U. S. Bureau of the Census, 1991). The 1991 U. S. Census Bureau report, 1990 Census Profile, contrasted this rate by the 18.5 percent increase reached in the 1950s, which included the peak of the post-World War II baby boom (1946-1964) when the rate of childbearing averaged over three births per woman. Since the baby boom, however, the rate of childbearing has dropped back to an average of about two births per woman. The population increase also reflects the decline in mortality and immigration.

Figure 1  
 POPULATION AND PERCENT CHANGE FROM PRECEDING CENSUS  
 FOR THE UNITED STATES: 1790 TO 1990



Source: U.S. Department of Commerce, Economic and Statistics Administration, Bureau of the Census. Population Trends and Congressional Apportionment. 1990 Census Profile. Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office. March 1991. Number 1.

The many disciplines studying the phenomenon of aging, ranging from study of the cell to the study of society, attribute this aging expansion chiefly to new technological medical breakthroughs, disease control and prevention, and health promotion. In addition, medical science has found multiple cures for illnesses which in the past would have prevented many people from living beyond the age of 65 (Atchley, 1987). Technology and Aging in America (1985) reported that in the last two decades, medical technology has sharply reduced the mortality rate of older persons through control in heart disease and stroke. However, the United States Senate Special Committee on Aging (1984) reported that chronic conditions, some of which are subtle and others complex, still plague a great majority of the older population: arthritis (50 percent); hypertension (39 percent); hearing impairment (30 percent); heart conditions (36 percent); orthopedic impairments (17 percent); cataracts and sinusitis (15 percent each); visual impairments (10 percent); and diabetes (9 percent).

There is probably no group in American society as complex and as misunderstood as this expanding population of older Americans. The prevailing image of the sick, lonely, and destitute old man or woman simply is not typical of most persons today. In fact, contrary to the way policy for older Americans is debated and adopted, there is no typical older person except that they are all age 65 years and over.

Today's older Americans are a symphony of diversity. Their roots are from Europe, Africa, the Middle East, the Pacific and Asia, North America, Central and South America, and the Caribbean. Some older people are dreadfully sick and waiting to die, while others are physically fit and in training to run marathons. Some have condominiums and live in affluent retirement centers while others wait in bread lines for warm, nutritious meals. Some bask in the warmth of the sun while others may embark on a change in career direction. Some welcome the respite that retirement brings while others regard it as an end to purposeful living.

Even more surprising than the heterogeneity of this group is the inaccuracy of what Americans believe about it. This literature search disclosed a multitude of examples of negative images and myths that many Americans hold regarding the aged. A 1981 poll conducted for the National Council on Aging illustrated just how inaccurate perceptions of older Americans tended to be. For example, over two-thirds of those polled between the ages of 18 and 64 believed that persons 65 years and older lacked enough money to live on. In reality, only 17 percent of the older persons surveyed felt that insufficient money was a serious problem for themselves. Even more fascinating, at least half of the over age 65 polled believed that other older persons lacked the funds necessary for survival.

Many of the general public and health care professionals alike hold the attitude that senility inevitably accompanies old age, and believe that most older people eventually become afflicted with certain common mental illnesses that can be seriously incapacitating (Hendricks & Hendricks, 1986). Mental illnesses for them include organic brain disease, depression, and hypochondriasis. Salter & Salter (1976) believe that some of these societal attitudes come from the opinions that aging is a forerunner to death, and hence, the sight or thought of aging may arouse anxieties within and reinforce negative stereotypes and attitudes toward the aged and the aging process.

Berg and Cassells (1990) assert that for a layman to observe a halting step or near-sighted squint and say the person is "just getting old" reflects our culture's pessimistic attitude toward aging. However, when a health professional dismisses such impairments as "merely aging," he or she may be closing the door on counseling and treatment that could spare an older person years of discomfort, isolation, or disability.

Palmore's (1988) Facts on Aging Quiz surveys led him to conclude that most people know little about aging and have numerous misconceptions. According to Palmore's studies, one of the most frequent misconceptions about aging is that many people do not know that fewer of the aged have mental impairments, when all types are added together, than other age

groups. Palmore relates that recent studies (Myers et al., 1984; U. S. Senate Special Committee on Aging, 1984) sponsored by the National Institute on Mental Health (NIMH) in New Haven, Baltimore, and St. Louis all found that persons over age 65 had the lowest overall prevalence rates of mental impairment when the eight most common disorders were grouped together--affective disorders, panic and obsessive/compulsive disorders, substance abuse, and/or dependence, somatization disorder, antisocial personality disorder, schizophrenia, phobia, and severe cognitive impairments. These studies also showed that there was little significant difference between those aged 45 to 64 and those over 65, except for severe cognitive impairment, which was higher among those over age 65 (Palmore, 1988).

Many respondents to the NIMH studies believed that organic brain impairment is easy to distinguish from functional mental illness, when in fact, the symptoms of organic brain impairment, such as the affective or anxiety disorders, are difficult to distinguish. Miller (1980) suggests that organic brain impairment is difficult to diagnose because of ambiguous diagnostic criteria, inadequate assessment techniques, and other diseases that often mask or mimic mental symptoms. Both Miller (1980) and Palmore (1988) urge that although accurate diagnosis is difficult, it is crucial, since recovery from reversible illness may depend on prompt and appropriate treatment.



Based on an in-depth search for information that included literature searches, interviews with experts, and selected site visits, the American Hospital Association - Division of Clinical Services and Technology (Meditrends: 1991-1992, 1991) found that in neuroservices, diagnosis and treatment of neurological diseases and disorders are becoming much more aggressive as a result of the availability of more effective and novel technologies and therapeutic agents. In psychiatry, they report that new psychiatric services are being developed, while there is a continued emphasis on the development of alternatives to inpatient psychiatric services.

The prevailing stereotype of persons age 65 years and older depicts progressive physical deterioration leading to disability and eventual institutionalization. Although the poor health of older people is a major concern, among contemporary older Americans it is far less pervasive than is commonly assumed. The 1982 Long-Term Care Survey and National Center for Health Statistics found that fewer than one in five persons over age 65 has any level of disability, and fewer than one in 25 is severely disabled. Furthermore, less than five percent were found to be institutionalized.

Berg and Cassells (1990) even argue that the pessimistic attitude toward aging is carried over into our nation's health policies. For example, they assert that health research, education, and service policies are often written as though our older generations are beyond help when they cannot be

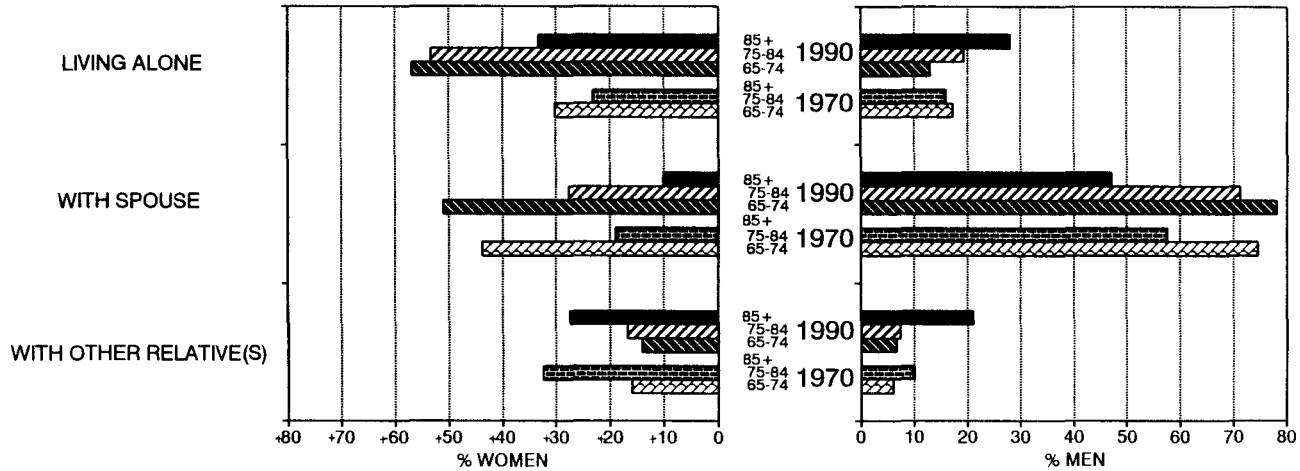
cured of diseases, even though there is sufficient evidence of the benefits of health promotion (e.g., exercise and diet) and disability prevention (e.g., blood pressure and cancer screening) among older individuals. Kane, Ouslander, and Abrass (1989) admonish such stereotypic attitudes when they acknowledge that some physiological, sociological, behavioral, and psychological changes may result simply from the way older people are treated by mainstream society. Even Neugarten (1979) argues that few elderly people ever show signs of mental deterioration or senility that society envisions.

The patterns of change for older Americans are shifting. Health status is shifting from severe and problematic chronic disabilities to greater physical well-being (Birren & Zarit, 1985). Living arrangements are increasingly changing from dependent to independent living (McLean, 1988; Rowe & Kahn, 1987). See Figure 2 for a comparison between the 1977 and 1990 living arrangements of older Americans. About half of them live in eight states: California, New York, Florida, Pennsylvania, Texas, Illinois, Ohio, and Michigan, with two-thirds of them living in metropolitan areas (Dychtwald & Flower, 1989).

Older Americans may relocate but return to live within a 20-30 mile radius of family, friends, and significant others later in life (The Senior Living Industry, 1986). Although Americans are now living longer, most are not working during their later years (Dychtwald & Flower, 1989). This phenomenon

Figure 2

COMMUNITY LIVING ARRANGEMENTS OF OLDER PERSONS AGED 65+  
1970 vs 1990



- Notes:
- (1) Compiled data were abstracted from various Statistical Abstracts of the United States 1970 and 1990 and Marital Status and Living Arrangements, March 1991. (Series P-20. No. 450). U.S. Department of Commerce, Bureau of the Census. Washington, D.C.: U.S. Government Printing Office.
  - (2) The most significant change over the years in living arrangements of persons age 65 + was in nursing homes. In 1977, on average, 20% of age 65+ lived in nursing homes versus 5% in 1990; and of this percentage, the range was 1% for persons 65-74 years, 5% for persons 75-84 years, and 25% for persons 85 years and older.

may change, however, as America continues to shift from an industrialized society to a more service oriented society which requires less brawn than brain.

Today's older Americans are significantly less educated than the rest of society, but this will change as the baby boomers grow old. The baby boomers, as a group, are more highly educated. In terms of life satisfaction, a variety of surveys have found a majority of older persons to be satisfied with their lives. This is in despite of the ageism in society, often lack of access to transportation, and in some cases, lack of access to health care.

In terms of economics, the socioeconomic status of older Americans ranges along the entire spectrum of the aging population. It ranges from wealthy to poor, and homeless to high society - often depending on education, income sources, and spending needs (Dychtwald & Flower, 1989). This phenomenon is unlike the earlier decades of the twentieth century when most older Americans, on average, were at or below the poverty line.

Although published accounts of the overall status of contemporary older Americans are often conflicting, with some experts depicting them, on average, as in poor health, socially maladjusted, lacking vitality, and at the poverty level, (Jaco, 1979; Streib, 1983; Hooyman & Kiyak, 1991; U. S. Bureau of the Census, 1988), there seems to be a consensus on concern about escalating health care costs (Hooyman & Kiyak,

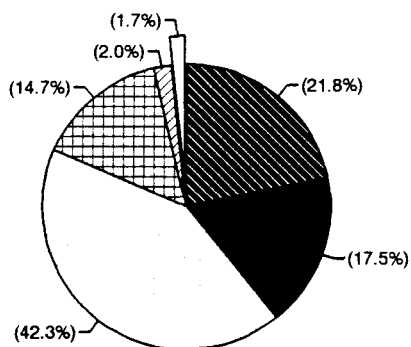
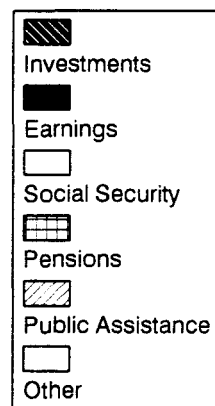
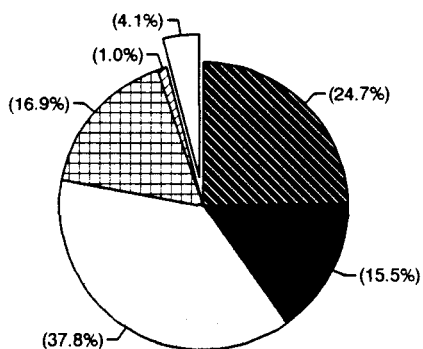
1991). The government funded health care programs have often been subject to cost-cutting measures, while co-payments for health care services have been steadily increasing. This constitutes a problem for most older Americans who live on fixed incomes, which sometimes do not include pension programs or investments. Figure 3 exhibits a 1980 versus 1990 income source for older Americans; Figure 4 shows their 1989 distribution of expenditures; Figure 5 exhibits the 1977 and 1987 source of payment; and Figure 6 shows the 1977 and 1987 private and government spending for geriatric health care.

The 1985 House Select Committee on Aging reported that social Security benefits were the largest single source of income for today's older Americans, and almost one-third of Medicare payments are for people in their last year of life. The Technology and Aging in America report (1985) discloses that the high rate of expenditures for older Americans in the last year of life are largely due to the intensification of services, expanded use of costly diagnostic and treatment services and technologies, and the rising cost of labor. This inflation in health care expenditures by an increasing number of older people has led to concerted efforts by federal and state governments to contain spending.

The cost-cutting efforts imposed by governmental policies have far-reaching implications for older Americans. Federal and state cost containment has usually involved cut-backs in health care spending for older Americans, and has resulted in

Figure 3

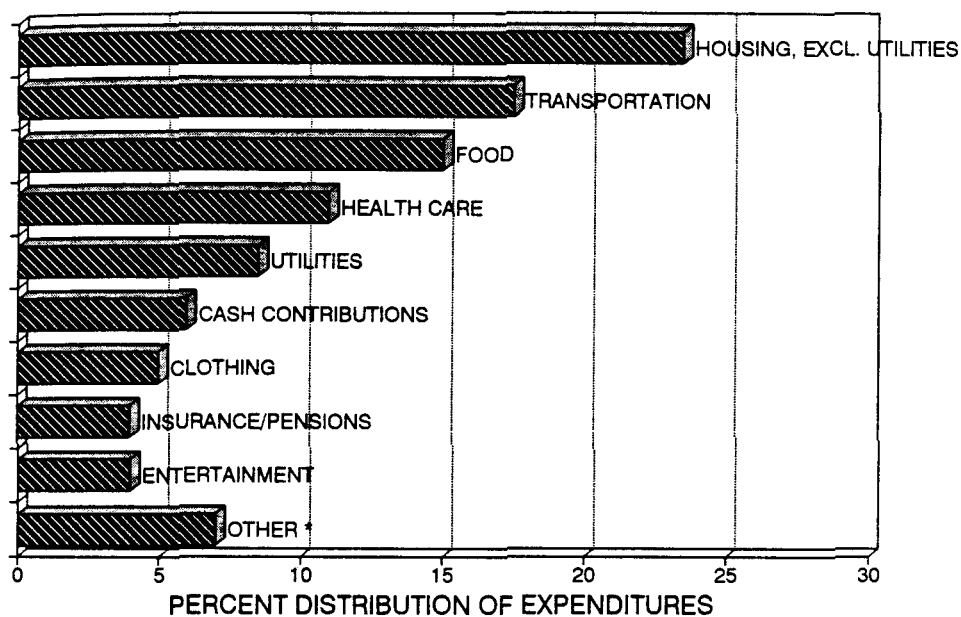
INCOME SOURCES FOR OLDER PERSONS AGED 65+  
1980 vs 1990

Figure 3a  
1980Figure 3b  
1990

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstracts of the United States: 1990. 1991 Census Summary Tape File (STF). Unpublished.

Figure 4

DISTRIBUTION OF EXPENDITURES FOR PERSONS AGED 65+  
1989

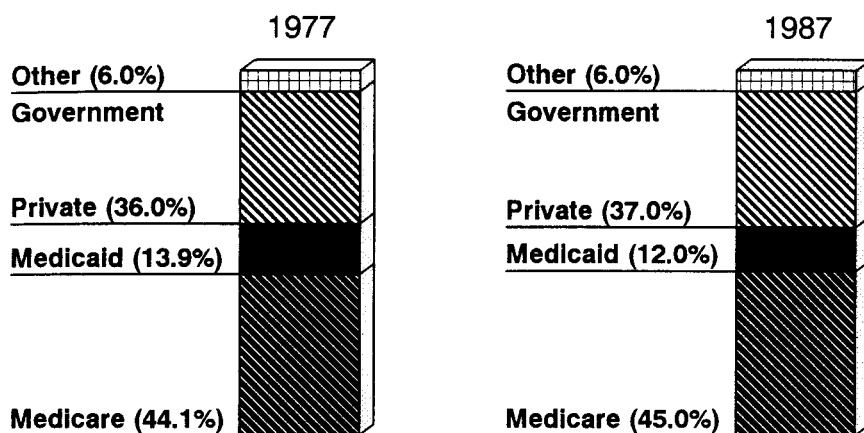


\* Indicates personal care products and services, tobacco and alcoholic products, reading materials, education, and miscellaneous expenditures.

Source: U.S. Department of Labor, Bureau of Labor Statistics  
Consumer Expenditures in 1989  
Press Release USDL: 90-161. 30 November, 1990

Figure 5

GERIATRIC HEALTH CARE PAYMENT SOURCE:  
1977 vs. 1987



Note: Although private payment increased by only 1% over the decade 1977 to 1987, the Medicare deductible has doubled and out-of-pocket medical expenses take a larger portion of the limited incomes of older Americans.

Source: D.R. Waldo, S.T. Sonnefeld, D.R. McKusick, and R.H. Arnett, III. Health Expenditures by Age Group, 1977 and 1987. Health Care Financing Review. Vol. 10, No. 4. Summer 1989.



Figure 6

SPENDING FOR GERIATRIC HEALTH CARE  
1977 vs 1987

FIGURE 6a  
OTHER THAN GOVERNMENT SOURCES

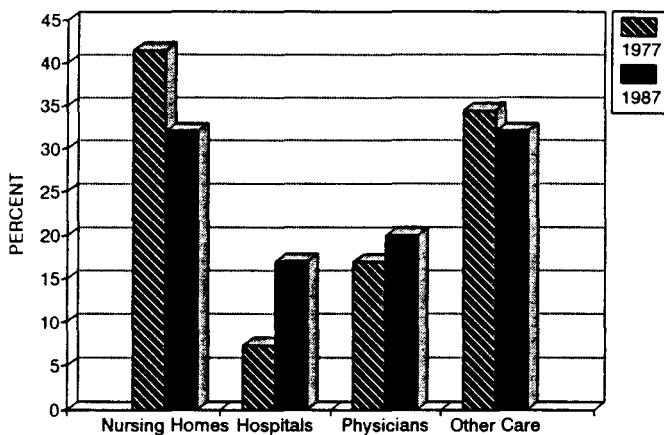
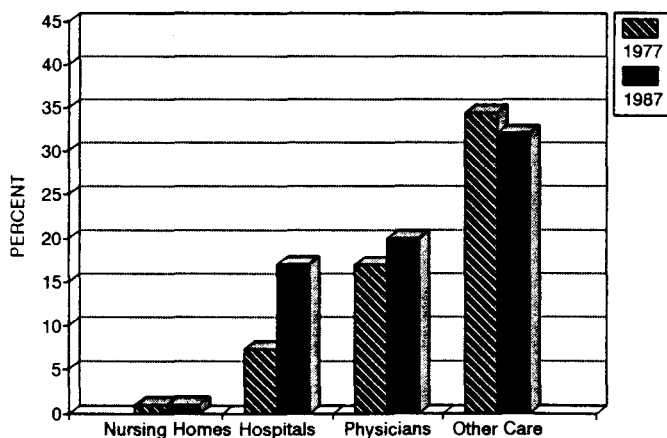


FIGURE 6b  
GOVERNMENT (MEDICARE) SPENDING



Source: D.R. Waldo, S.T. Sonnefeld, D.R. McKusick, and R.H. Arnett III.  
Health Expenditures by Age Group, 1977 and 1987.  
Health Care Financing Review. Vol 10, No. 4. Summer 1989.

increases in co-payments for older persons, and decreases in their services. A governmental cost containment alternative might be a call for a decreased use of intensive diagnostic technologies and services for older persons, particularly since the life sustaining value of costly technologies is in question for this age group.

Governmental cost containment has led to relentless reductions in Medicare and Medicaid financing, lesser reimbursement rates for physicians treating older persons outside the hospital setting, and higher co-payments for older persons. If cost containment continues to adversely affect the older health care consumers, it would mean limited access to care for some older Americans, and no access for others. Even though income from pensions and other assets may be more prevalent among the baby boom older persons in the twenty-first century, so that they will be better able to afford health care, the overwhelming numbers and diversity of this age group will still cause a financial burden on the health care financing system unless alternatives to the current system are made.

The federal government seems to be satisfying cost containment by increasingly placing much of the responsibility of geriatric health care on the older Americans themselves, while shifting the emphasis of health education, health promotion, and disease prevention to the general public. The federal government is currently putting less money into the

geriatric coffers, and waiving the responsibility of health care for older Americans under the premise "less governmental intervention is better."

Concurrent to the financial dilemmas of health care for older Americans, their social structures - relationships with family, friends, and mainstream society, are increasingly becoming disjointed (Rosow, 1974). To highlight the significance of this dilemma, Hey and Carlson (1991) has disclosed that nuclear families (children) are abandoning ("dumping") their elderly parents. Hey and Carlson allude that it could be due to exhaustion from the pressures of caregiving, or it could be due to Medicare's lack of payment for custodial nursing home care or at-home long-term care. Since data has evidenced that the health of older Americans is influenced by physiological, sociological, behavioral, and psychological factors (e.g., Besdine, 1982; Birren & Schaie, 1985; Binstock, 1985; Butler, 1975; Comfort, 1979; Fries & Crapo, 1981; Hayflick, 1979; Hooyman & Kiyak, 1991), it may be possible that cost containment based on a medical paradigm of "cure" is not the answer. It may be possible that a better understanding of the aging process, and associating physiological, sociological, behavioral, and psychological needs could elicit more appropriate, efficient, and cost effective geriatric care and treatment.

As the increasing population of older Americans becomes more visible, the aging process becomes increasingly defined

as problematic in terms of a barrier to immortality (Estes & Binney, 1989; Hooyman & Kiyak, 1991). Fries and Crapo (1981) argue that, even recently, scientific approaches to more precisely formulated questions have focused on disease rather than its absence, and on curative therapy rather than on understanding the basic nature of life's processes. Most people still view aspects of aging in terms of the visible signs like graying and thinning hair, a balding head, wrinkled skin, and a slower gait. Although these visible signs become apparent with aging, there are numerous other changes that occur inside the body that are less easy to detect but can often be more troublesome.

### **The Major Theories Of Aging**

Current theories of aging build on ancient foundations. Hippocrates postulated that the life force was innate body heat, which emanated from the heart. In his view, aging resulted from a diminution of the total reserve of this innate heat. Aristotle added the view that natural death occurred in old age because of the low reserve of innate heat, since even a slight illness or perturbation could extinguish life. Galen clearly separated the aging process from specific diseases, and he postulated that not only heat but also moisture was lost with age; he concluded, "That which all men commonly call old age is the dry and cold constitution of the body resulting from many years of life.

(Fries & Crapo, 1981, pp. 44-45)

In an effort to explain aging, social and biological theorists have developed several theories on how people respond to the aging process. In the strict sense of the word, a theory is a set of statements called propositions that

are logically interconnected and interrelated as such that they explain why an event, or a set of events, takes place (Barrow, 1989). It differs from ideas and guesses in that it (1) must begin with generalized propositions about the concepts being studied that are capable of being rejected; (2) must answer how and why relationships occur among the concepts; and (3) must be able to be tested through empirical or comparative research (Barrow, 1989).

A theory does not rest on a single proposition but on a series of propositions, any one of which may be partially in error. Any single proposition contained in a theory, a hypothesis, can be subjected to testing, and evidence may be collected that may or may not support the hypothesis. Through this process, theories point to questions that are still unanswered and require more research. Also, social theories can be used to predict what will happen in the future if no changes are made, and to suggest ways the social world could be altered in order to achieve specific results. This explanation of theory development, hopefully, will help in better understanding the following theoretical frameworks on aging, and the unexplained variables that might still exist.

### **The Physiological Dimensions Of Aging**

A number of genetic theories have arisen to explain differential rates of aging. One genetic theory is that the person who lives longer has more effective DNA repair systems. This is a promising area of research, but it is complicated by the intricate multiple phases of the repair systems. Some

genetic theorists presuppose a biological clock within us that begins ticking at conception. This clock may be in the nucleus of each cell of our body, advancing the proposition that the body is programmed by specific genes to live a certain length of time.

(Barrow, 1989, p. 238)

An early biological theory of aging was the Rate of Living Theory. This fixed energy concept implies that many organisms have a certain amount of energy stored within, and once it is exhausted they die (Hendricks & Hendricks, 1986). If this theory were accurate, we could anticipate higher mortality rates among those athletic individuals who engage in the most strenuous exercises throughout life. In point of fact, just the opposite has been shown to be the case. Recent studies have shown that regular exercise throughout life helps to maintain or extend life rather than hasten its demise.

Fries and Crapo (1981) assert that the discovery of the structure of DNA in the early 1950s gave new life to the study of aging and allowed new theoretical formulations to be raised. Yet, they also argue that experimental confirmation of the theories has proved difficult. More recent DNA research, although still in the experimental stages, suggest that longevity is related to an animal's rate of development, the length of its reproductive period, its maximum caloric consumption, and the size of its brain (Kotulak & Gerner, 1991a). Kotulak and Gerner reported that Richard Cutler, a research chemist at the National Institutes of Health's Gerontology Research Center in Baltimore, calls this

combination the mean lifetime potential of animal species and estimates the current human potential at 110 to 115 years.

Hooyman and Kiyak (1991) state that the process of aging is complex and multidimensional, involving significant loss and decline in some physiological functions, and minimal change in others. They postulate that a consistent theme in some theories depict aging as a process that is programmed into the genetic structure of each species, while other theories profile aging as representing an accumulation of stimuli from the environment that produce stress on the organism. They argue that although these theories help our understanding of aging, none of them is totally adequate in explaining what causes aging, nor is the evidence to support these theories always clear.

The biological theories on aging that reconcile the day-to-day aging process seem to corroborate this fact. They fall into two basic categories: (1) the theory that aging results from genetically programmed changes, or (2) the theory that aging occurs from an accumulation of errors due to environmental hazards (Beck, 1989). The more specific classifications of the biological theories are the germ theory of disease, epidemiological theory, the cellular concept of disease, and the mechanistic concept of disease. Twaddle (1979) relates that the first of these provided the impetus for traditional medicine in the conquest of infectious illness; the second is associated with public health; the

third has been influential in the search for causes of chronic and degenerative diseases; and, the last with surgery. Each of the following biological theories of aging describe what is considered the normal age-related changes which take place in major organs of the body.

Coni, Davison, and Webster, (1986) write that the mere fact that each species (human being) has its own characteristic lifespan suggests that some sort of "biological clock" mechanism, genetically programmed, underlies the aging process to allow the organism to grow, develop, age, and die in an orderly fashion and within a prescribed time. They call this theory the Biological Clock Theory. These medical gerontologists hold that genes carry specific instructions that facilitate not only growth and maturation, but decline and death as well. They also believe that the biological clock mechanism can bring about the early death of certain tissues in the developing organism so that natural growth and development occurs. Specifically, they refer to the developing fetus wherein the tissues between the future fingers and toes die in order to allow normal formation of hands and feet.

Unlike error theories of aging, the internal clock theories do not attempt to explain the process of aging in terms of one particular biologic mechanism or defect. Instead, these theories explain aging in terms of a genetically determined program. Interestingly, support for



this concept can be seen throughout our lives: the development of adult teeth, the onset of puberty and menopause, and gray hair. In spite of this powerful support to the evidence of aging through simple observation, there are other biological theories of aging that are far less visible and resolute in explanation.

The Stress Theory expresses that physical wear and tear from sudden and unexpected stressors over which we have no control causes aging (Hendricks & Hendricks, 1986). Hendricks and Hendricks relate that this theory suggests that, for example, stresses on our bodies that are brought on by rapid temperature changes, chemical or other irritants, or exhaustion, accrues with successive stressful events. Like the energy concept, in scientific literature, the stress hypothesis is not now a widely accepted causal explanation of the aging process.

The Wear and Tear Theory proposes that, with time, the internal organism simply wears out (Wilson, 1974; Flieger, 1991). In this model, aging is also a pre-programmed process. The Wear and Tear Theory insinuates that cells gradually lose the ability to repair damaged DNA, the substance that passes genetic information from one cell to the next. As a consequence, cells become less efficient in carrying out vital functions, such as making proteins, and eventually, they die. The Wear and Tear theorists believe that this particularly applies to tissues which are located in the striated skeletal

and heart muscle and throughout the nervous system where cells do not undergo cell division. They also suggests that this process is compounded by the effects of external stress on the body, for example, nutrient deficiencies.

Earlier studies done in the mid-1930s support this "rate of living" theory of aging. Investigators at Cornell University found that newly weaned rats that were fed a diet severely restricted in calories but nutritionally adequate lived extraordinarily long lives. Recent studies have demonstrated similar outcomes. Recent studies with mice have shown that undernutrition, as it is called, could lengthen lifespan even if the undernutrition was not started until the animals had reached adulthood (Flieger, 1991).

Flieger reports that restriction is the only technique that has been repeatedly shown to alter the rate of aging of laboratory animals. He reports that scientists speculate that reducing caloric intake may slow the animals' metabolism, and thus, reduce the rate of damage to cells or to DNA. One major drawback to this research is that there is little evidence to suggest that under-nutrition will increase the human lifespan, although comprehensive studies have not been done.

The Autoimmune Theory proposes that aging is a function of the body's immune system becoming defective and attacking not just foreign proteins, bacteria, and viruses, but also producing antibodies against itself (Hooyman & Kiyak, 1991). This explanation of the immune system is consistent with the

process of many diseases that increase with age, such as cancer, diabetes, and rheumatoid arthritis (Walford, 1969). Yet, this theory does not explain why the immune system becomes defective with age; only the effects of this change are described. For example, the thymus gland, which controls production of disease-fighting white blood cells, shrinks with aging, yet the reasons for both this reduction in size and why more older people do not suffer from autoimmune diseases, are unclear (Hooyman & Kiyak, 1991).

The Cross-Linkage Theory focuses on the changes in collagen with age. Bjorksten (1974) and Flieger (1991) propose that with the passage of time, more and more protein molecules in cells and tissues become chemically bound to one another through the accumulation of crosslinking compounds, which in turn slows the process of normal cell functions. When this happens to collagen--a protein that supports cells and tissues and is especially abundant in bone, cartilage, and tendons, it tends to become rigid (Flieger, 1991). Bjorksten and Flieger each relate that as a person ages, there are clearly observable changes in collagen, for instance, wrinkling of the skin, and these changes lead to a loss of elasticity in blood vessels, muscle tissue, skin, lens of the eye, and even to slower healing of wounds.

A special case of the Cross-Linkage Theory is the Free Radical Theory of aging. Harman (1981) explains that Free radicals are highly reactive chemical compounds that contain

an unpaired electron. He postulates that they are produced normally by the use of oxygen within the cell, and when they interact with other cell molecules, they may cause DNA mutations, cross-linking of connective tissue, changes in protein behavior, and other damage. Harman explains that such reactions continue until one free radical pairs with another or meets an antioxidant, which can safely absorb the extra electron. Cutler and Cutler (1983), Harman (1981), and Harman, Heindrick & Eddy (1977), all relate that the ingestion of antioxidants such as Vitamin E and carotene can inhibit free radical damage, and this can then slow the aging process by delaying the loss of immune function and reducing the incidence of many diseases associated with aging. Despite the reported evidence for the Free Radical Theory, all the Free Radical theorists are quick to point out that factual evidence for this theory and its related solutions are yet inconclusive.

The Cellular Aging Theory developed by Hayflick and Moorehead at the Wistar Institute in Philadelphia implies that aging occurs as cells slow their number of replications. Hayflick (1970) contends that embryonic human cells grown in tissue culture, have an inherent capacity to divide only about 50 times. Hayflick explains that once this limit ("Hayflick limit") is reached, cell division stops, and the cell line dies. Simply stated, Hayflick theorizes that cells have maximum life spans that are determined not by some built-in

genetic program, but by their decreasing ability to repair the cumulative damage from life's wear and tear. Although he passionately supports his theory, he does acknowledge certain exceptions. For example, he accepts that cells from older subjects replicate even fewer times, as do cells derived from individuals with progeria, a rare condition in which aging is accelerated and death may occur by age 15 to 20. Another exception is abnormal cancer cells that are able to double indefinitely. Flieger (1991) explains that human cells in tissue culture may divide as fast as once in every 18 hours; while nerve cells, on the other hand, may never divide once nerve tissue has been formed.

Just as Hayflick finally disproved earlier cellular theories, geneticist David Harrison of the Jackson Laboratory in Bar Harbor, Maine recently broke the Hayflick limit, at least for some cells (Kotulak & Gorner, 1991c). Kotulak and Gorner reported that Harrison found that bone marrow stem cells divide well beyond the Hayflick limit and never seem to age. Stem cells, they reported, give rise to all the various types of blood cells, and keep making new blood cells throughout life.

Other cellular aging theorists point out that each cell has a given level of DNA that is eventually depleted, and this in turn reduces the production of RNA, which is essential for producing enzymes necessary for cellular functioning (Goldstein & Reis, 1984). Hence, cellular aging theorists

conclude that the loss of DNA and subsequent reduction of RNA eventually result in cell death. Although preliminary studies have found length of life span of species correlated with ability of DNA to repair itself, other studies question the strength of this relationship (Gaylord & Williams, 1989). Gaylord and Williams think that one explanation is that short lived strains may not need repair capabilities since significant environmental damage takes place over time. They take the position that DNA-repair capability has not been conclusively related to age.

Why cells lose the ability to reproduce seems still to be unclear, but it is believed that some element in the genetic code dictates how many times a cell can divide and then brings cell division to a halt. Most scientists agree that the human lifespan is probably pre-determined, however, earlier scientists working with tissue culture believed that, given the proper conditions, cells, tissues, and organs, and perhaps even humans could survive indefinitely (Flieger, 1991).

The Accumulation of Errors Theory implies that aging is due to an accumulation of errors in the molecular content of the cells of the body. Coni, Davison, and Webster (1986) speculate that living cells and tissues have a continuous turnover of vital ingredients, such as enzymes, hormones, and neurotransmitters. And, at each stage in the biochemical processes there is the possibility of error, and if errors accumulate beyond a certain level, the cells or tissues will

become incompetent and may die. For example, they maintain that if the brain cells deteriorate chemically, then even if the cells themselves survive ultimately the brain as a whole would cease to function satisfactorily, and homeostatic controls (i.e., temperature, blood pressure, etc.) would fail throughout the body and death would occur.

The Accumulation of Waste Theory suggests that the accumulation of waste products of metabolism, either in the cells or between the cells, may well be part of the aging process. Coni, Davison, and Webster (1986) stress that this is particularly so in those cells of the body which do not divide and therefore cannot reproduce themselves. They say that this type of cell is in the heart muscles and nervous tissue of the brain and spinal cord, and these cells are as old as the individual. They further claim that in the cells that are not renewed, that is, cells in the heart muscle, kidney, and brain, they observed a gradual accumulation of substances that were recognizable under the microscope by means of special staining techniques. A major flaw in the theory is that the researchers could not continue the paradigm by identifying whether all the accumulations are beneficial or deleterious.

In summary, physiological aging seems to be a misunderstood complex of biological processes and stochastic (non-determinative) events that can cause impaired homeostasis, reduce adaptation to environmental demands,

reduce capacity for self-regulation, tissue compensation and repair, reduce resistance to disease, and lead to eventual death. Despite the growing amount of basic research in the area of physiological aging, none of the theories on aging, some of which are not discussed here, seem to provide an all-inclusive conceptual framework from which biological aging may be viewed.

Increasingly, there is decreasing consensus within the medical profession regarding the extent to which the focus of physicians and other health workers should be limited to the biological parameters of illness. Andrew Twaddle (1979), a noted social scientist, observed that although more attention is being given to the social, psychological, and other non-physiological dimensions of aging in the medical literature, far more is needed. On the basis of the increasing older patient numbers alone, one might expect considerable attention to be paid to the theoretical and conceptual issues surrounding the social and behavioral aspects of aging.

It has been fairly well established that age related changes can be variable, depending upon a person's environment, self-concept, heredity, and life-satisfaction. Many professionals involved with the 65 year old and older population have even suggested that the only real physiological characteristic that older people share is having aged to over 60. Yet, although, they specify that the rate at which people age is variable, one must also conclude that



there seems to be remarkable uniformity about the aging process. Figure 7 displays the relationship between some of the destructive and repair mechanisms of tissues, cells, and molecules of the body.

Because many aspects of health are age related, professionals with interests in studying the phenomenon of aging have long considered it necessary to inquire about the nature of the process of aging. Bloom (1963), Birren and Zarit (1985), Henry (1985), Hooyman and Kiyak (1991), Kotulak and Gorner (1991a), and Twaddle (1979), have all suggested that aging is a complex phenomenon with no single controlling mechanism, and that many social and behavioral factors can also modify the way in which we age. For example, studies have shown that social class and educational level are related to mortality rates (Barrow, 1989; Berg & Cassells, 1991; Dychtwald and Flower, 1989; Fries & Crapo, 1989; Havighurst et al, 1969; Palmore, 1974), and many of the biological aging theorists have agreed that attributing the state of one's health solely to heredity or to the condition of one's immune system is far too simplistic.

Figure 7

## Aging in the cell: the causes and the processes

Discoveries in genetic engineering and new insights into how bodies age have brought many scientists to the realization that aging involves the relationship between the destructive and repair mechanisms of tissues, cells and molecules of the body, and that they behave differently in each person. Aging may be a byproduct of the random changes in the normal processes that maintain and keep the body functioning.

### Free radicals

Many chemical reactions result in the transfer of electrons from one atom or molecule to another. Stable molecules have paired electrons. Free radicals are formed by the loss of one member of a pair. Free radicals are highly volatile and often become molecular "sparks" that cause damage to cell proteins and DNA. Most of the damage is routinely repaired, but not all. Scientists theorize that when enough cells go haywire from free-radical damage, that part of the body begins to age.

### Garbled message

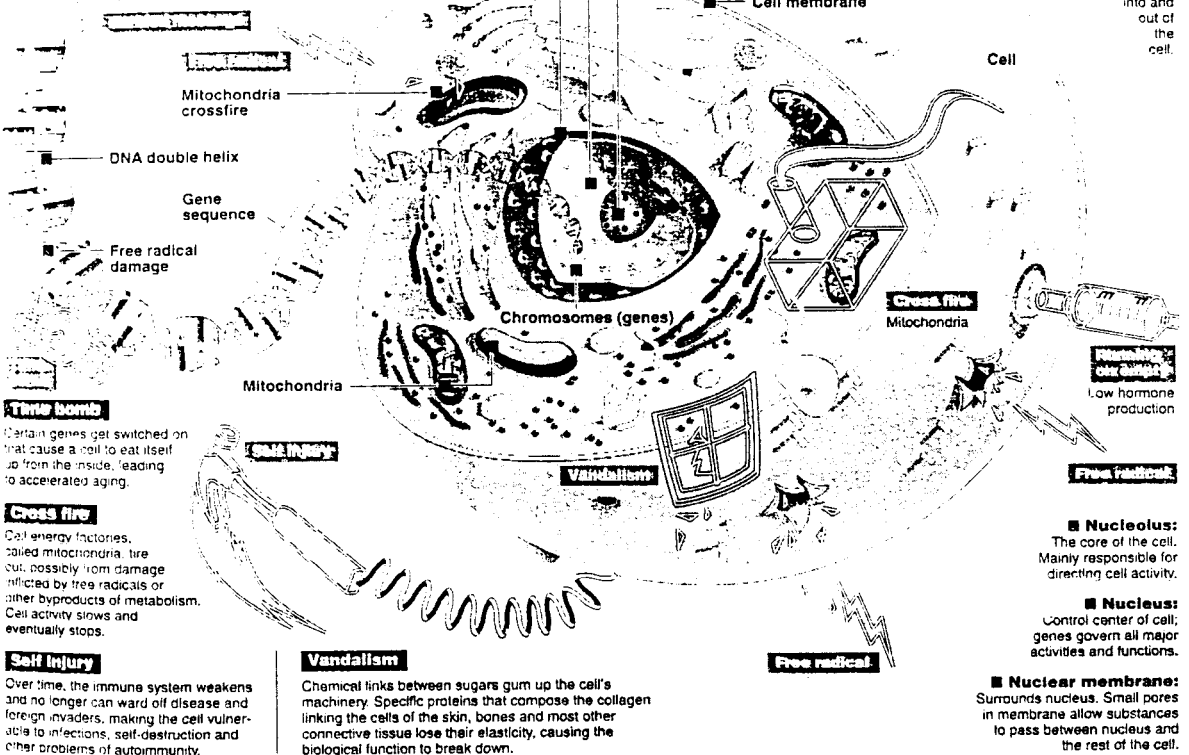
DNA damage eventually fails to get repaired, causing genes to send out wrong messages or no message at all.

### Putting off repairs

Damaged proteins are repaired and replaced billions of times in the life of the average cell. Failure of the maintenance systems leads to decay of the cell and, in turn, brings function of the cell to a halt. Mutations, or environmental assaults to genes from daily living, eventually overwhelm the body's repair fleets, damaging important biological processes.

### Running on empty

Declining production of key chemical messengers (hormones) that regulate body systems and biological clocks causes the body to age and leads to the crash of the whole biological system.



Source: Reprinted, with permission, from R. Kotulak and P. Gorner. Aging On Hold: Science Begins To Reset The Clock. Chicago Tribune. 8 December 1991. Sec. 1, p. 23.

## The Social And Behavioral Dimensions Of Aging

Ultimately, what matters is not whether our heart and bones are strong, but that we derive a sense of meaning from a long life and are competent to deal with a changing environment that challenges us. Good health is a necessary element in a good life, but it by no means ensures one. In this sense, our characteristics are hierarchically arranged with biological health being necessary but not a sufficient condition for a meaningful, content, and competent life.

(Birren & Stacey, 1988, p.54-55)

Aging is a psychosocial and behavioral as well as a biological process. In contrast to the physiological dimensions of aging, the psychosocial and behavioral context of aging is concerned with the process of self-adjustment to aging and adjustment to societal expectations and norms. This dimension links illness, disease, and health, to lifestyle, nutrition, activities of daily living, socioeconomic level, social interactions, social roles, and to social behavior -- concepts that are somewhat of a departure from the traditional medical paradigm.

In defining the social and behavioral dimensions of aging, it may be important to first unravel some of the basic social and behavioral concerns. Some of the basic questions of concern for many social gerontologists are:

- What is the place of the social support hypothesis in understanding biomedical events?
- What is the evidence concerning the effects of social and behavioral factors on the individual's health and well-being?

- What kinds of diseases have been attributed to the absence (or lessening) of the social and behavioral dimensions?
- What are the mechanisms in the social environment (the institutions, social roles, self-perceptions, self-satisfaction, relationships, etc.) that maintain, produce, or remove the quality of life for older persons?

Comfort (1979) links the concept of aging to that of senescence, defined by him as a change in the behavior of the organism with age, leading to a decreased power of survival and adjustment. Cowdry (1942) distinguishes between endogenous (internal) changes in tissues and fluid that lead to vulnerability in the cells of organ systems with the passage of time, and the effect of exogenous (external) factors, such as trauma, infection, or nutritional inadequacies, which result in degenerative changes and susceptibility to disease. These propositions convey the optimistic view that when medical science conquers the mystery of biological aging, there will not be a limit to longevity. They also ignore the effects of behavioral self-regulation and control.

One of the earliest attempts by social gerontologists to explain how individuals adjust to aging involves an application of Role Theory (Cottrell, 1942). Cottrell states that roles identify and describe a person as a social being

and are the basis of self-concept. He states that each social role is associated with a certain age or stage of life. His example of social role relates that, in most societies, particularly Western ones, chronological age is used to determine eligibility for various positions, to evaluate the suitability of different roles, and to shape expectations of people in social situations.

Older persons face a number of role dilemmas. With age, people are more likely to lose roles they have filled in the past rather than acquiring new ones. Moreover, the most common role losses are largely irreversible (Rosow, 1985). For example, Rosow refers to loss of the spouse role with widowhood, or of the worker role with retirement. Hagestad and Neugarten (1985) relate that individuals hold norms about the appropriateness of their own behavior at particular ages, so that "social clocks become internalized and age norms operate to keep people on the time track." Rosow also points out that since roles are the basis of an individual's self-concept, role loss can lead to an erosion of social identity and self-esteem. Phillips (1957) lends further support to Rosow's, Hagestad's, and Neugarten's argument when disclosing that some early research found that the role losses of retirement and widowhood were related to maladjustment, as measured by self-reports about the amount of time devoted to daydreaming about the past, thinking about death, and being absent-minded.

Rosow (1985) theorizes that with age, roles tend to become more ambiguous. He suggests that guidelines or expectations about the requirements of roles, such as that of family authority or nurturing parent, become less clear to older people themselves as well as to others. Burgess (1960) even maintains that the role of the retired person is "roleless." This implies that older persons lack societal consensus to guide their retirement behavior, which may serve to exclude them from socially meaningful activity. Hooyman and Kiyak (1991) argue that without clear-cut roles or alternatives to the displaced roles, older persons may experience deviance in physiological functioning or role discontinuity.

Later research provided less support for the above role identity conclusions. Hooyman and Kiyak (1991) assert that many men in their forties and fifties enter second or third careers, and that others perform new roles, adjust to changing roles, relinquish old roles, and, thereby, remain integrated in society.

Havighurst (1963, 1968) conducted a behavioral study in Kansas City on 300 primarily white, middle class, and healthy 50 to 90 year old people, who were interviewed at regular intervals over a six-year period. His analyses resulted in a theoretical perspective known as Activity Theory. This theory assumes that older people who are active will be more satisfied and better adjusted than less active elderly.

Lemon, Bengtson, & Peterson (1972), by extension, argue that since Activity Theory presumes that a person's self-concept is validated through participation in roles characteristic of middle-age, it is seen as desirable for older people to maintain as many middle-age activities as possible, and to substitute new roles for those that are lost through widowhood or retirement.

Empirical support for the Activity Theory has been mixed. The second Duke Longitudinal Study (Palmore et al, 1985) found that being active in organizations and physical activity were two major predictors of successful aging. Interestingly, some other studies, identified a negative association between formal group activity and life satisfaction (Longino & Kart, 1982). Longino and Kart suggest that the mixed views on Activity Theory indicate that variables other than level of activity, such as opportunities to interact intimately with others, are needed to explain life satisfaction.

Hooyman & Kiyak (1991) point out that many older people who were active during middle age may no longer want to sustain their activity level, and, in fact, may value the opportunity to curtail their social involvements. Although some studies found that active people have better physical and mental health and take greater satisfaction in life than do the inactive, Havighurst et al (1969) and Palmore and Merton (1974) insist that such people are generally better educated and have more money and options than those less active.

Havighurst and his colleagues (1968) also assert that people who have been active, successful, and outwardly-directed in middle-age will likely be satisfied to continue this path into old age, whereas those people who have been passive, dependent, and home-centered will be content to sustain this contrasting pattern later in life. This perspective has led other sociologists to argue that, rather than remaining active, good adjustment to the aging process involves disengagement.

The Disengagement Theory assumes that older people, experiencing losses of roles and energy, want to be released from the societal expectations that they be productive and competitive. Cumming and Henry (1961) argue that disengaged older people, freed from the demands of employment roles, are better able to participate in satisfying family relationships than those who remain occupied with work. Minkler and Estes (1984) disagree with Cumming and Henry. They argue that the Disengagement Theory may be seen as legitimizing the earlier mandatory retirement laws and other policies that foster the separation of older people from the rest of society. Cumming and Henry (1961), in response to such criticism, reformulated the Disengagement Theory to acknowledge that people have widely variable adaptive behavior, and that differences in environmental opportunities can affect the engagement, disengagement, continuity, or exchange of older people.



Continuity theorists propose that a person's general pattern of adaptation to old age can be predicted by that person's previous adaptations to adulthood and middle age (Barrow, 1989). According to the continuity theorists, the aging person substitutes new roles for lost ones, and continues to maintain typical ways of adapting to the environment in order to maintain inner psychological continuity as well as the outward continuity of social behavior and circumstances (Neugarten, Havighurst, & Tobin, 1968). The basic tenets of the Continuity Theory are that people, whether young or old, have different personalities and lifestyles, and that personality plays a major role in adapting to aging.

Critiques of the Continuity Theory debate over the degree of stability a person might have on the life cycle (Peruin, 1985). They question its ecological validity (Hooyman & Kiyak, 1991); the fact that declining health in later years may affect self-esteem, requiring modifications to lifestyle continuity (Fox, 1981-82); or the positive effects achieved by freeing one's self from former roles (Gutmann, 1974; Gutmann, Grunes, & Griffin, 1980; Neugarten, Crotty, & Tobin, 1964; Peruin, 1985).

The first social scientist to apply Exchange Theory was J. David Martin (1971). He used the theory to aid in understanding visiting patterns among family members. For example, aged individuals who have little power other than

reminding others of a familial obligation are forced to pay a high price for visits by relatives. According to Barrow (1989), this theory suggests that the older person's persistent complaints that relatives do not visit may motivate uneasiness in the visitor's behavior, thereby decreasing any pleasure and satisfaction felt by those who visit. On the other hand, those older persons who have other sources of power, for example, financial resources or interesting stories to tell, are in a better position (Roberto & Scott, 1986).

Dowd (1980) has conceptualized a more general and extensive application of the Exchange Theory. Being critical of both the Activity Theory and the Disengagement Theory, and feeling that neither sufficiently addresses the utility or inexpediency of social interaction and activity, he argues that in the exchanges between the elderly and their social environment, the elderly gradually lose power until all that remains is the "humble capacity to reply." One answer, he postulates, as to why older persons disengage or become less active, is not because it is mutually satisfying for the individuals and society, but because society enjoys a distinct advantage in the exchange relationship between the elderly and society. The Exchange Theory is an interesting concept on the side of the elderly. It attempts to explain the elderly position of activity and disengagement, dependence and self-sufficiency, and reward and punishment.

In the main, discussion on the sociological, behavioral, and physiological dimensions of aging are not sufficient when considering the whole individual. There is a widely held view that intellectual power inevitably declines with advancing years, and this view is often shared by the elderly themselves. The old saying "you cannot teach an old dog new tricks" is typical of societal stereotyping of older people.

### **The Psychological Dimensions Of Aging**

It has been postulated that it is the number of interconnections between the cells, rather than the number of cells which is important, and even then, it may be the comparatively useless cells which die off. It is certainly claimed that the connections can be increased by training rats in a maze, with the result that the weight of the forebrain and the length and width of the cortex become greater. This appears to be true of rats reared in an intellectually deprived environment, whose brains start off greatly disadvantaged by comparison with their siblings (sisters and brothers) which have been intellectually stimulated from birth, and whose brains show no such response to training. (Coni, Davison, & Webster, 1984, pp. 55)

According to the psychological dimensions of aging, the aging person, while often is suspect of not being able to learn new things, may also substitute new roles for lost ones, and may continue to maintain typical ways of adapting to the environment in order to maintain inner psychological continuity as well as the outward continuity of social behavior and circumstances (Coni, Davison, & Webster, 1984; Neugarten, Havighurst, & Tobin, 1968).

personality Theory directs attention to the many variables of individual personality, such as interest, motivation, and awareness. Disengagement theorists have used personality variables to explain why some individuals are satisfied with an active lifestyle while others prefer disengagement (Barrow, 1989). Barrow writes that personality theorists generally use personality characteristics to explain why some individuals readily adapt and cope with aging and why others have problems. For instance, Barrow relates that personality studies have shown that many elderly individuals are mature, focused types, happy, and satisfied with life; while some others are striving, and complain a lot; and even others are simply passive and depend entirely on others. He asserts that these types may be apathetic and bored, see the world as collapsing, and become preoccupied with holding on to what they have. Barrow notes that the most disorganized personalities are those who suffer major impairments to their mental health and cannot function outside an institution.

The basic tenets of the psychological theories are that people, whether young or old, have different personalities and lifestyles, and that personality plays a major role in adjusting to aging. It suggest that changes in life are integrated into one's prior history without necessarily causing upheaval or disequilibrium (Atchley, 1989). Critics of the theories proposed by Atchley, Barrow, Coni, Crotty, Davison, Webster, Fox, Martin, Neugarten, Havighurst, Tobin,

and others, argue that individuals seek to maintain a particular pattern of behavior throughout life. Fox (1981-1982), for example, argues that trying to maintain previous patterns in life can be maladaptive.

Increasingly, it is becoming recognized that how well we live, how long we live, and our satisfaction with life, can be accounted for by heredity and with the interaction of myriad factors in our physical and social environments. This perspective is contrary to the way health professionals and researchers are trained (Birren and Zarit, 1985). Birren and Zarit provide this example: "Physicians tend to divide the patient population into two groups: those who are 'truly medically ill,' and those who were first thought to be ill, but for whom there are no explanatory organic defects." This thesis allows limited room for the etiology of symptoms outside the traditional medical paradigm.

Although many of the aging theories to date are more descriptive than explanatory, and at risk of being supported, they are all valuable because they allow for the accumulation of knowledge and research on the aging process. They also provide for a more coherent and logical understanding of what might otherwise be only vaguely perceived. For example, giants steps have been made recently in genetic research.

Using the tools of molecular biology, scientists are now busy searching for disease-causing genetic defects with startling success, and are devising ways to correct them.

Kotulak (1991) reported that the gene which causes cystic fibrosis, for example, was discovered by researchers from the University of Michigan and Toronto Children's Hospital in September 1989. A year later, in 1990, other scientists from the University of Michigan and Iowa used gene therapy to cure cystic fibrosis in the laboratory, opening the door to the first effective treatment for the most common inherited disease in North America.

After discovery of the cystic fibrosis cure, the flood gates opened to other discoveries. In rapid order, scientists discovered the genes that are responsible for causing osteoarthritis, which affects 16 million Americans; spinal muscular atrophy, a childhoodcrippler; Alport syndrome, which affects the kidneys; and hypertrophic cardiomyopathy, a disease that can lead to a ruptured aneurysm (Kotulak, 1991). These new discoveries in genetic research have helped to dispell some of the older aging theories, for example, that osteoarthritis was due to the inevitable wear and tear of joints. For many diseases, discovering their genetic roots may mean they no longer are hopeless disorders. Specifically, these new discoveries may hold promise of soon correcting such debilitating gene-linked disorders as cancer and heart disease

Recent aging research is also making convincing connections between oxygen free-radicals and diseases such as Alzheimer's, schizophrenia, Parkinson's, Down's syndrome, cancer, heart disease, stroke, paralysis, cataracts,

arthritis, emphysema, dandruff, and even hangovers (Gorner & Kotulak, 1991b). Free-radicals are a byproduct of burning oxygen in our cells, and occur when molecules are torn apart and thrown out of electrical balance (Gorner & Kotulak, 1991b). Gorner and Kotulak report that scientists have found that they are capable of damaging tissue, and can impair a cell's ability to function or even destroy it. They report that normally, anti-oxidants neutralize free-radicals, but enough survive to sabotage the proteins that make up cells. Based on this evidence, it appears that free-radicals may possess the power to sustain life by fueling the body's chemical reactions, and destroy it when they are out of hand.

#### **The Dimensions Of Normal Aging, Disease Development, And Debilitating Diseases**

Even though we are less conscious of age-related changes in earlier stages of our lives, we are all aging from the moment of birth....After age 30, additional changes occur that reflect normal declines in all organ systems....Ultimately, reducing the viability of different bodily systems and increasing their vulnerability to disease.  
(Hooyman & Kiyak, 1991, p. 5)

One of the most intriguing mysteries of life is the process of aging, that is, how we develop and function, and finally how we degenerate and die. It happens to all of us. It affects our realities of life and our mortality. Yet, in this age of global communication, orbital satellite launchings, and advanced biomedical technology, the aging process is one of the least understood functions of living.

Although most discussions about aging imply a gradual accumulation of poor health, the process of aging begins with the changes that occur in the earliest stages of life, and moves on a continuum to the very end of life. Most biological scientists agree that even as early as ages thirty and forty some bodily functions may start to decline: failing vision, hearing impairment, and unsteadiness on the feet. These bodily functions degenerate with increasing age, even in the absence of disease.

The paradigm-like framework for aging that has been proposed by the World Health Organization (Mortimer, 1988) and other health scientists begins with independence, leads to the development of disease, and ends with dysfunction. This framework offers the backdrop against which normal aging, disease, and dysfunctions are discussed in this section.

### Normal Aging

The constitution that created the World Health Organization (1946) defines health as a "state of complete physical, mental, and social well-being." Based on this definition, a person who is not in a state of complete physical, mental, and social well-being may be considered "unhealthy," diseased, or sick. Many social and biological scientists also believe that this definition of health is too broad. They consider that such a definition makes it exceedingly difficult to define any boundaries, or set limits on the scope and responsibilities for providers of care.



Knowles (1979) believes that the health status of children is the only state in which "healthy" can be realistically defined because children are not in an aging process decline. As people grow beyond adolescence, there are obvious changes in their behavior and physical appearance as well as in their mental and physical capabilities. Many of these changes are inherent in the genetic makeup of the individual, but the rate of aging is also influenced by lifestyle, including nutrition, mental and physical activity, and the effects of trauma and disease (Birren & Schaie, 1985; Coni, Davison, & Webster, 1986; Finch & Schneider, 1985). In short, even with the benefit of healthful living, as people grow older, physical, mental, and behavioral impairment invariably occurs.

### Sight

Barrow (1989), Coni, Davison, and Webster (1986), Kane, Ouslander, and Abrass (1989), Reuben (1989a), and Williams and Gaylord (1989), all point out that as people age, the eyes may develop a condition in which near vision is impaired. They relate that this loss of focusing power is due to presbyopia, a reduced elasticity of the lens of the eye, that can begin as early an age as thirty or forty. Williams and Gaylord even assert that beginning as early as 20 years, static visual acuity shows a gradual and steady decrease. At this point of "normal" degenerative vision, eyeglasses may be required, and some people may need the assistance of bifocal lenses.

Tierney (1982) relates that the lens of the eye steadily hardens throughout life, and may begin to cause problems for a persons as early as forty. "By then the lens is too big for the eye muscles to focus properly on close objects." Tierney relates age to vision in this way:

Age 30: 20/20 vision; may read with glasses.

Age 50: 20/20 for distance vision, but need glasses to read; a less elastic eye lens causes sensitivity to glare; and perception begins to get worse.

Age 60: 20/25 vision; a less elastic, yellower lens filters out some blues and greens.

Age 70: 20/30 vision; peripheral vision is diminished; night vision is worse, and the eyes take longer to adjust to darkness for clearer vision.

Kane, Ouslander, and Abrass (1989) assert that other eye degenerative problems can occur with further increasing age, for example, cataracts, glaucoma, macular degeneration, and diabetic retinopathy.

### Hearing

Barrow (1989) asserts that hearing loss which affects high frequency sounds and pitch discrimination can be experienced as early as age 30. It is below the age most people expect hearing loss to occur. He attributes this hearing loss to a loss of elasticity in the inner ear. Reuben (1989a) relates that between 25 and 55 years of age, pitch

discrimination declines linearly, but after age 55, decline is steeper, especially for very high and very low frequencies. Coni, Davison, and Webster (1986) suggest that although hearing loss may be detected early by special tests, it only becomes obvious to the person after many years of impairment. They relate, for instance, that a person with such an impairment may selectively fail to hear the higher pitched consonant element of speech, discern the spoken word with the interference of background noise, or comprehend a conversation in a crowded room.

### Posture

In terms of posture, walking upright rather than in a quadruped manner is a learned practice. Therefore, as Coni, Davison, and Webster (1986) attest, the very young and old alike have difficulty maintaining an upright balance. Tierney (1982) suggests that a person can withstand gravity only so long. As his or her muscles weaken, the back slumps, and the disks between the bones of the spine deteriorate, those bones move closer together, and as a result, the body shrinks and slumps.

Until the 1940s, falls were considered random or chance events (Tinetti, 1989). However, Tinetti points out that a large number of studies now affirm the predictability of falls by older persons. For example, she conveys that balance and gait are functions of the brain and central nervous system, and can be considered the end products of the sensory,

central, and effector components of stability. She states that normal balance and gait require proper functioning of each of these components as well as integration among them.

Tinelli states that age-related changes in balance include increased sway and slowing of response to postural perturbations. Age-related changes in gait include decreased step length and increased double stance time (time spent on both feet). Tinelli considers that these age-related changes may have little clinic significance until diseases and disabilities are superimposed. Coni, Davison, and Webster (1986) even found that the risk of falling in the adult increases linearly with age, and that women are twice as likely to fall as men. (See Figure 8).

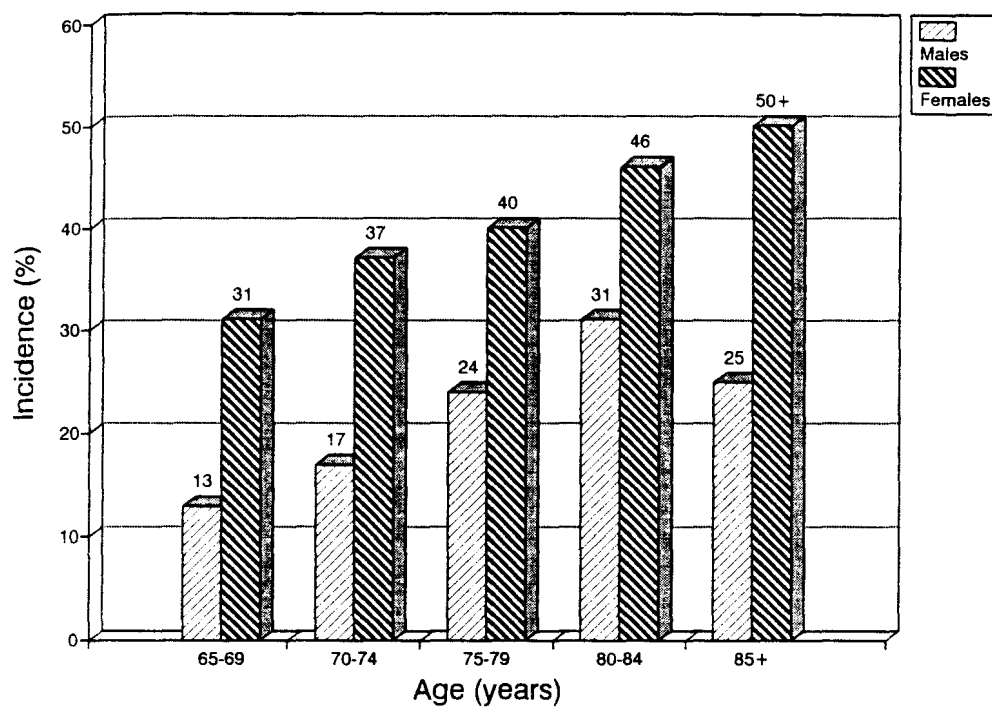
Based on Figure 8, 30 percent of women age 65-69 years of age report falling regularly, and the incidence rises to over 50 percent in women age 85 years and above. Coni, Davison, and Webster (1986) attribute this rate of falling to poor balance, tripping, dizziness, and impaired hearing and sight. For example, they explain that unlike younger persons who often stumble when tripped, older persons often fall because of their inability to quickly regain their balance.

### Body Composition

There is a gradual shrinkage of the lean body mass as people grow older, including the brain, lungs, liver, kidney, and all the muscles and bones (Barrow, 1989; Coni, Davison, & Webster, 1986; Kane, Ouslander, & Abrass, 1989; Palmore,

Figure 8

## PERCENT LIABILITY TO RECURRENT FALLS



Source: N. Coni, W. Davison, and S. Webster.  
Ageing: The Facts. Great Britain: Oxford University Press.  
1986. p. 46.

Busse, et al, 1985; Rowe & Kahn, 1987; Tierney, 1982). These sources maintain that the lean body mass is maximal in the third decade of life, but gradually decreases thereafter and is usually replaced by fat. Tierney relates specifically that a person is not burning up enough food, both because of increasing inactivity, and basal metabolism (the rate at which the resting body converts food into energy) that is slowing down about 3 percent every decade. He considers that while muscle and other tissue is dying, accumulated fat is taking up more of the body, and the following aging patterns occur:

Age 20: 165 pounds, 15% of it fat.

Age 30: 175 pounds.

Age 40: 182 pounds.

Age 50: 184 pounds.

Age 60: 184 pounds.

Age 70: 178 pounds, 30% of it fat.

This explanation for body composition aging leads to the paradox that people who manage to maintain their weight through later life also gain fat. Some studies have shown that although such people are losing lean body mass but gaining fat, the added fat may be beneficial both aesthetically and to health. For example, data from the Framingham Study (Andres, 1981) indicated that modest increases in fat may even prolong life when ideal body weight is maintained.

### Metabolic Changes

The basal metabolism of the body, the biochemical activity at absolute rest, is highest in infancy, drops rapidly during childhood, and continues to drop slowly from puberty to the middle 20s (Coni, Davison, and Webster, 1986). Coni, Davison, and Webster and some other experts on normal aging explain that thereafter, the basal metabolism continues to decline, but at a rate that is much slower. They explain further that in sedentary people, basal metabolism accounts for most of the energy (calorie) requirement, and therefore, to avoid obesity in middle age and later in life, one must maintain regular physical activity and reduce calorie intake.

### Heart and Blood-Vessels

Barrow (1989), Coni, Davison, and Webster (1986), Tierney (1982), and Williams and Gaylord (1989), all agree that as people age, the size of the heart shrinks in parallel with the shrinkage of the other main organs, muscles, and bones. They relate that the sinus and atrioventricular nodes lose cells and become infiltrated with connective tissue and fat surrounding the heart, and as a result, there is a slackening of the rate of blood flow with each heartbeat, and slower response to increased workloads.

Coni, Davison, and Webster relate specifically that the arterial systolic blood pressure (when the heart is contracting) gradually rise by 20-30 percent from age 30-70 years, and the diastolic pressure (heart relaxation) rises

only minimally. They suggest that this change can cause an increased risk of both excessively high and low blood pressure in response to postural changes, illness, and use of drugs.

### Lungs

Muscles, according to Tierney (1982), that operate the lungs weaken, and this results in stiffening of the tissues in the chest cage making the lungs expand less. As a consequence, a deep breath is not as deep as it once was, and the maximum amount of air taken into the lungs decreases with age thusly:

Age 30: 6.0 quarts.

Age 40: 5.4 quarts.

Age 50: 4.5 quarts.

Age 60: 3.6 quarts.

Age 70: 3.0 quarts.

Coni, Davison, and Webster (1986), assert that total lung capacity shrinks throughout adult life. They note that elastic recoil of the lungs is less and ventilation of the tiny air spaces is reduced, and that there is less efficient gas exchange to bring oxygen into the blood stream and to take waste carbon dioxide out. They relate that these changes limit exercise tolerance, which means that whatever the level of exercise, the aging person has to increasingly breathe harder to maintain the normal blood oxygen level.

Williams and Gaylord (1989) articulate that the physiologic changes in lung function associated with aging begin at approximately age 30, accelerate with advancing age,



and are attributable to three factors: (1) a decrease in lung elasticity; (2) an increase in stiffness of the chest wall; and, (3) a decrease in respiratory muscle strength.

### Oral Cavity

Williams and Gaylord (1989) note that receding gums expose the relatively soft cementum to erosion. They state that healing of abrasions seems to be impaired, and, with time, enamel, and dentum, are worn down. They relate that fibroblasts in the pulp begin to diminish in the early 20s, and the cement substance in the root canal of the tooth continues to be formed throughout life, although age-related changes do not necessarily lead to loss of teeth. Tierney (1982) relates that despite the fact that the amount of enamel on the surface will decrease with age, and the layer of dentin underneath will become more translucent, most tooth and gum decay is a result of neglect and caries or peridontal disease, all of which can be prevented by good dental care.

### Kidney Function

The ability of the kidney to filter blood and excrete waste products is reduced due to a gradual loss of nephrons, a tiny anatomical and functional sub-unit of the kidney, consisting of a filter and a lengthy tubule which collects the filtrate from the capsule (Coni, Davison, and Webster (1986). Williams and Gaylord (1989) and Kane, Ouslander, and Abrass (1989) also relate that the kidney size and weight shrink

corresponding to the general decrease in the size and weight of all organs of the body.

As further verification that aging is a continuum and not just an extension of disease, these scientists have observed that even in an otherwise healthy kidney, the filtration capacity in the 80-year-old is only half that of a young person. For example, the bladder's capacity declines from two cutfuls at age thirty, to one cupful at age sixty to seventy.

### Sexual Function

Williams and Gaylord (1989), Coni, Davison, and Webster (1986), Kane, Ouslander, and Abrass (1989), Masters and Johnson (1970), and many other social and biological scientists have all verified that there is no inevitable cessation of sexual activity with aging. These scientists relate that there is no comparable lack of spermatogenesis (manufacture of the male sex seeds), and so reproduction for the male is possible until very late in life. They point out however, that after menopause in the female, the absence of ovulation and menstruation renders the female sterile. When Tierney (1982) looked at male sexuality in terms of aging, he considered that the testes sag, and the penis takes longer to reach orgasm and to recover.

Butler and Lewis (1982) have identified constraints on sexuality as a significant risk factor for depression in older people. Some of these constraints are social, that derive from a lack of sexual opportunity due to societal bias, and a

lack of self-confidence. Berg and Cassells (1990) argue that other constraints may be pharmacological, especially the wide use of antihypertensive medications, and, paradoxically, medication for the treatment of depression itself.

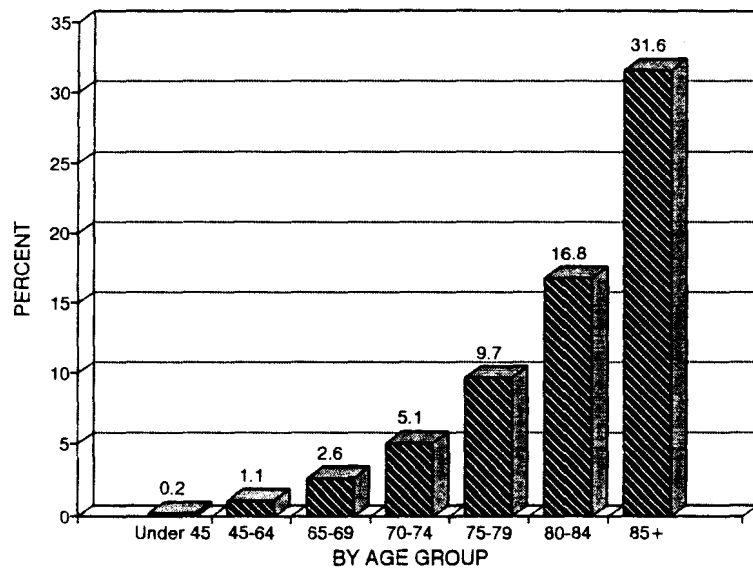
To conclude this review on normal aging, it appears that aging consists of gradual changes in structure and function which begins at an early age and continues with the passage of time. Hence, aging does not result from disease or trauma, but appears to cause an increasing probability of death.

More recently, there have been anti-aging studies that seem to have embarked on a "fountain of youth." In July of 1991, the Medical College of Wisconsin in Milwaukee reported that 21 men, ages 61 to 81 years, were injected with human growth hormone and regained mass muscle power and vigor within six months that equated to what they had lost over the preceding two decades (Kotulak, 1991). Another study on the elderly at Tufts University found that intense weight training, exercise, had a similar effect as growth hormone.

Even the fittest of us must in our philosophy of life accept that we will experience a process of normal aging, and that we will eventually die. Figure 9 shows the continuum of degenerative change by age group that appears to be inherent in the normal aging process. Table 1 lists many of the degenerative processes in normal aging. Table 2 lists some of the ways in which we can help to retain our youth and prolong the onset of aging.

Figure 9

## PERCENT U.S. POPULATION NEEDING PERSONAL CARE BY AGE GROUP



Source: W. Scanlon and J. Feder. The Long-Term Care Marketplace. Healthcare Financing Management. January 1984.

Table 1

## PHYSIOLOGICAL CHANGES IN NORMAL AGING

	Percent Change (Age 30-75)	
	Increase	Decrease
Body composition:		
lean body mass		20-40
body fat	40-60	
Functional changes:		
metabolic rate (energy consumed) at rest		20
capacity for strenuous physical work		60
kidney function		40-60
maximum breathing capacity		50-60
blood pressure (systolic)	20-30	
Brain function:		
memory, sensory appreciation, speed of reaction, coordination capacity		Reduced
Immune system		Reduced
Bone mass		Reduced
Hearing		Reduced
Sight		Reduced
Oral Health		Reduced
Reflexes		Reduced
Sleep		Reduced
Temperature regulation		Reduced
Body fluid regulation		Reduced
Sense of smell, taste, and balance		Reduced
Response to medical therapy	Altered	
General appearance of face, skin, hair, and body contour		Reduced
Posture control and gait		Reduced

Sources: Barrow, 1989; Berg, 1989; Coni, Davison, and Webster, 1986;  
Kane, Ouslander, and Abrass, 1989; Hooyman and Kiyak, 1991;  
Reuben, 1989a; Tierney, 1982.

Table 2

## FACTORS TO CONTROL AGING

Physiological Function	Problem	Control Factor
Muscle Mass	Americans tend to lose 6.6 pounds of lean body mass each year, with the rate accelerating after 45.	Exercise
Strength	The average person loses 30% of his/her muscles and nerves between ages 20 and 70. Strength and size of remaining cells can be increased.	More exercise
Calories	At age 70, a person needs 500 fewer calories per day to maintain body weight.	Reduce calorie intake
Body Fat	The average 65 year old sedentary woman's body is 43% fat compared to 25% at age 25.	Convert fat into muscle by exercising
Blood Pressure	Most Americans show an increase in blood pressure with age.	Exercise
Blood-Sugar Tolerance	Some diabetes is caused by an increase in body fat and loss of muscle mass.	Exercise/Diet
Cholesterol	Bad cholesterol leads to heart disease. Good cholesterol helps protect against it.	Low fat diet/ Exercise
Temperature	The body's ability to regulate temperature declines with age.	Regular exercise/ Diet
Bone Density	Bones lose mineral content and become weaker with age.	Proper calcium/ Stress exercise
Aerobic Capacity	The body's efficient use of oxygen declines by 30-40% by age 65.	Aerobic exercise

Source: Ronald Kotulak and Peter Gorner. Aging on Hold: Scientists call diet, fitness keys to long life. Chicago Tribune. 10 December 1991. Sec. 1, p. 13.

### The Development Of Disease

Because of the increased prevalence of chronic disease, the presenting problem may not be as distinct as with a younger patient, who is typically well until the onset of a new symptom complex. With an elderly patient, the new problem is generally superimposed on a background of already existing signs and symptoms. The onset may be less clear, the manifestations less precise. In addition, we need to recall that many symptoms and signs are not produced by the disease itself but by the body's response to that insult.

(Kane, Ouslander, & Abrass, 1989, p. 12)

Based on the literature review of normal aging, it appears that many diseases in later life can start as early as middle age or even earlier. Some diseases may be due to the combined effects of heredity, aging, nurture, and environmental hazards largely outside the control of the individual. Concomitantly, other diseases have been causally related to long-term habits of eating, alcoholic consumption, cigarette smoking, drug-taking, sexual activity, and exposure to sunlight. Hence, based on this analogy, it can be theoretically assumed that the health problems of older persons are different from those of younger persons, and therefore, require different care and treatment.

Barrow (1989), Beck (1989), Berg and Cassells (1989), Coni, Davison, and Webster (1986), Dychtwald and Flower (1989), and Kane, Ouslander, and Abrass (1989), all concur that the young and middle-aged tend to suffer from acute problems such as infectious diseases and traumas, while older persons, although they experience some acute and trauma

problems, primarily suffer from chronic, degenerative diseases. These differences have serious implications for geriatric health care since most health care today is based on an acute care model.

The following chronic diseases often afflict older persons, and can lead to stages of immobility, instability, incontinence, impairment of vision and hearing, intellectual impairment, infection, impecunity, irritable colon, isolation (depression), inanition (malnutrition), insomnia, impotence, iatrogenesis, and immune deficiency.

### Arthritis

Arthritis affects at least 50 percent of the population of persons age 65 years and over. Musculoskeletal disorders (arthritis) result from degeneration of the cartilage that lines the joints (Kane, Ouslander, and Abrass, 1989; Kohut, Kohut, and Fleishman, 1987; Robinson, 1989b). Kohut, Kohut, and Fleishman assert that arthritic sufferers may show signs of fatigue, malaise, muscle aches, depression, and other complications resulting from pain and the inability to carry out their activities of daily living.

Robinson (1989b) relates that lower extremity arthritis is a major contributor to immobility, and is worsened by increased weight. He suggests that a reduction of weight and limitation of weight-bearing are helpful, but total non-use of the extremities leads to atrophy and further weakness.



Berg and Cassells (1990) argue that many of these complications could be avoided if impairments, disabilities, and handicaps in older persons were better studied. For instance, they argue that evidence on the efficacy/risk profile of most new drugs is gathered in pre-market testing that generally includes only modest numbers of truly older subjects, most of whom are in better health than the typical geriatric patient who receives such medication once it is marketed. They argue further that degenerative joint disease is a major cause of disability in older persons, and its medical management represents one of the most important way in which drugs can enhance functional capacity.

### Hypertension

Robinson (1989a) relates that both cross-sectional and longitudinal studies demonstrate a linear increase in mean systolic blood pressure from age 30 (120mm Hg) through the 80s (over 170mm Hg), and lesser diastolic increases that peak around age 60 and decline slightly thereafter.

Kane, Ouslander, and Abrass (1989) note that hypertension is the major risk factor for stroke, heart failure, and coronary artery disease in older persons. They assert that hypertension is remediable, and its control may reduce the incidence of coronary heart disease and stroke. Therefore, increased efforts at detection and treatment of high blood pressure are highly indicated.

Berg and Cassells (1990) argue that because of the different ways events are categorized and because of limited sample sizes that do not allow for subgroup comparisons, it is often difficult to distinguish the impact of treatment on rates of specific endpoints such as stroke, congestive heart failure, or myocardial infarction. Nonetheless, it appears that hypertension, in many cases, can be controlled, and therefore, treatment of diastolic blood pressure in older persons is warranted.

### Diabetes

Diabetes mellitus is one of the most common endocrine diseases in the United States, and affects several million people. It is the leading cause of blindness, chronic kidney disorders, increased susceptibility to infections, peripheral neuropathy, and vascular degeneration resulting in gangrene and loss of limbs (Kohut, Kohut, and Fleishman, 1987).

Reuben (1989b) states that diabetes mellitus increases dramatically with age. For example, among persons age 45-64 years of age, 5.5 percent are afflicted, by 75 years of age or older, 8.9 percent are afflicted, and some studies suggest that the rate may rise to 16-20 percent in persons 80 years of age or older. Reuben also states that ongoing studies designed to examine the effectiveness of tight control of blood glucose values in preventing complications such as retinopathy and nephropathy have specifically excluded older patients. Similarly, the clinical value of angiotensin-

converting enzyme inhibitors in reducing urinary protein excretion has yet to be demonstrated for older persons.

### Nutrition/Malnutrition

It has been estimated that 40 percent of older persons manifest some kind of nutritional problem, such as obesity, a nutrient (vitamin or mineral) deficiency, or protein-calorie malnutrition. Silver (1989) writes that many more older people are at risk for developing nutritional deficiencies because, with aging, there is a reduction in nutrient reserves and an inability to respond adequately in periods of stress. However, there are some scientists who endorse the proverb of Titus Lucretius Carus (99-55 B.C.) "what is food to one, is to others bitter poison."

Silver asserts that older persons are at increased risk for developing malnutrition because of various social, physical, pathophysiologic, and miscellaneous factors. For example, social isolation, lack of money, decreased vision, mobility, oral health, and depression or dementia. Silver argues that malnutrition, therefore, places older persons at higher risk for subsequent mortality or morbidity, possibly including decreased resistance to infection, decreased wound healing, increased incidence of hip fractures, anemia, poorer performance on cognitive tests and dementia, increased risk of cardiovascular disease, and dehydration. Silver and many other health professionals stress that with intervention, most, if not all of these processes can be reversed. Hence,

preventive health care is prudent in controlling and maintaining adequate nutritional status in older people.

Kotulak and Gorner (1991b) reported that the federal government is making a massive effort to examine nutrition under the microscope, and are looking to established science to help determine what foods are good for us and which exercises allow us to be healthy. One of the most profound discoveries to date is that our diet not only supplies our bodies with energy and protein, but that it is also the key to determining how well our genes manage life processes. Stated simply, scientists have found that the genes that safeguard youth can be controlled by what we eat.

In addition, Kotulak and Gorner report that early nutrition research helps to educate people on how to reduce their risk of heart disease and stroke by revealing how those diseases are linked to cholesterol, fatty foods, and lack of exercise. Deaths from heart disease and stroke have dropped dramatically since nutrition research has revolutionized aging theories in the last two decades. A new breed of researchers are investigating diet and nutrition with unprecedented precision and are encouraged that ongoing nutrition research will continue to produce understanding in how to control and prevent diseases. From a single blood sample, they can compile a profile of more than 70 nutrient-related compounds, to which they are testing nutrients for anti-cancer potential (Kotulak & Gorner, 1991b). They are also testing Vitamin A,

such as beta carotene and retinoids, considered to keep cells healthy; Vitamin E, purported to retard cellular damage from oxygen; and calcium, which some researchers believe curbs potentially cancer-causing chemical reactions in the intestines.

### pulmonary Diseases or Respiratory Problems

Significant pulmonary deficits are frequently seen in older persons. Kane, Ouslander, and Abrass (1989), Kohut, Kohut, and Fleishman (1987), and Berg and Cassells (1990) all concur that the capacity for adequate breathing may be diminished, the efficiency of the entire respiratory system may be decreased, and many bodily functions may be compromised without adequate amounts of oxygen. These deficits are caused by certain diseases, and aggravated by smoking and prolonged exposure to polluted air in urban or occupational climates. Pulmonary diseases common to older persons include chronic obstructive lung disease involving asthma and bronchiectasis (airways), and bronchitis and emphysema (alveoli).

Robinson (1989c) relates that several non-pulmonary etiologies figure prominently in the differential diagnosis of wheezing and dyspnea in older persons. He cites the most significant as congestive heart failure. Hooyman and Kiyak (1991) assert that four times as many men as women have respiratory problems, probably due to a combination of normal changes in the lungs, and the affects of cigarette smoking and air pollution in the community and in the work place.

## Depression

Depression is probably the most common example of the nonspecific and atypical presentation of illness in older persons. The signs and symptoms can be the result of a variety of treatable physical illnesses, or the presenting manifestations of depression, or a related condition that requires specific diagnosis and management by a psychiatrist (Kane, Ouslander, and Abrass, 1989). In general, the symptoms are fatigue, weakness, anorexia, weight loss, anxiety, insomnia, and just "pain all over." Specifically, the following systems present more serious physical symptoms:

- (1) Cardiopulmonary System - chest pain, shortness of breath, palpitations, and dizziness;
- (2) Gastrointestinal System - abdominal pain, and constipation;
- (3) Genitourinary System - frequency, urgency, and incontinence;
- (4) Musculoskeletal System - diffuse pain, and back pain; and,
- (5) Neurological System - headache, memory disturbances, dizziness, and paresthesias.

It is estimated that between two and seven percent of persons aged 65 years and over have clinically diagnosed depression. When the estimates of undiagnosed depression are factored into the sum total, the proportion of depressed older people may exceed ten percent, according to the Office of

Technology Assessment, Technology and Aging in America, 1985. Kane, Ouslander, and Abrass consider that depression and physical illness(es) coexist in older persons. Hence, it is no surprise that treatable depressions are often overlooked, and that treatable physical illnesses are often not managed optimally in older patients diagnosed as having a depression. Recent advances have made depression an eminently treatable disorder, yet, only a minority of older depressed persons are receiving adequate treatment, in large part because of inadequate recognition of the disorder. Kotulak (1991) reported that recurring severe depression, the form of the disease that has proven most treatment-resistant, can now be effectively treated. He reported that psychiatrists at the University of Pittsburgh's Western Psychiatric Institute and Clinic showed that 80 percent of patients who took a high dose of an antidepressive drug on a continuing basis did not experience relapses over a three-year period. Because more than half of the 10 million Americans who suffer from depression during any six-month period are reported to have recurrent bouts of depression, the new treatment is expected to produce major benefits.

Berg and Cassells (1990) argue that depression is seriously underdiagnosed and often misdiagnosed, and as a result, vast resources are expended in fruitless diagnostic searches, in medical treatment of somatic symptoms without a detectable basis, and in neglect of the underlying, treatable

psychiatric disorder. This literature review disclosed that one of the major risk factors of untreated depression is suicide.

### **Other Functional Mental Disorders**

The National Institute of Mental Health in 1985 (Bloom, 1985) studied affective disorders, panic and obsessive/compulsive disorders, substance abuse and dependence, somatization disorders, antisocial personality disorders, and cognitive impairment, and found that, contrary to popular belief, persons of age 65 years and older have the lowest overall rates of mental disorders of all age groups. To clarify some of the mental disorders researched, mental disorders can be divided into two categories: (1) psychosis (organic - consisting of acute and chronic brain syndrome, and functional - consisting of affective disorders such as schizophrenia); and (2) non-psychotic neurosis.

Kohut, Kohut, and Fleishman (1987) reflect that a major difficulty in treating mental disorders in older persons is that many of them accept these disorders as an inevitable part of the aging process, and do not seek help until acute or severe problems appear. Hooyman and Kiyak (1991) also relate that the problem with describing the prevalence of mental disorders of older persons is the lack of criteria from those that continue throughout adulthood. A number of researchers however are now developing such measures, especially for diagnosing depression and dementia in older persons.



## social Isolation

Social isolation is considered a risk factor in the development of disease and in the disability that can occur in the course of existing disease (Berg & Cassells, 1990). Berg and Cassells define social isolation structurally as the absence of social interactions, contacts, and relationships with family and friends, with neighbors on an individual level, and with society-at-large on a broader level.

Berg and Cassells assert that a consideration of social isolation almost always occurs in the context of social support, and that the two terms, in most cases, are used interchangeably. They believe that both concepts have been defined inexactly over the past few decades, and this lack of standard definition has become more apparent with the increase in the body of work analyzing social isolation as a risk factor for the general well-being of the older population.

Berg and Cassells note that the theoretical base as well as empirical work on social isolation and disease has not been consistent in differentiating prevention of occurrence and the various levels of morbidity and mortality. One seminal theory in which they link social isolation and resultant stress to weakened host resistance, is a link between a lack of social ties to stress and possible susceptibility to coronary heart disease. This theory however describes broad and nonspecific effect.

Berg and Cassells stress that the knowledge base for social isolation as a risk factor for disease, for functional incapacity in general, and for disability and dysfunction as a result of that incapacity is at an early, even primitive stage when compared with knowledge regarding the risk of smoking, the importance of dietary control, and other more directly observable and more thoroughly researched areas. However, despite this lag in research, there seems to be sufficient evidence to indicate that social isolation is a risk factor for some diseases. Therefore, social isolation in older persons should be seriously studied.

### Activities of Daily Living

For older persons, diminishing physical activity resulting from disease or disability is often a fact of life. Increasing debilities can limit an older persons ability to perform basic self-care tasks, often referred to as activities of daily living (ADLs). Activities of daily living can involve the performance of such tasks as shopping, cooking, housekeeping, laundry, use of transportation, managing medications, or even using the telephone (Katz, 1983; LaCroix, 1987). Table 3 displays some of the increasing difficulties which older persons experience in activities of daily living.

But these days, old age is not necessarily synonymous with illness, inactivity, and immobility. Fully half of all people now 75 to 84 are free of health problems that require special care or that curb their activities of daily living

Table 3

INCREASING DIFFICULTY IN  
ACTIVITIES OF DAILY LIVING (ADLs)

Activity	Age (Percent with Difficulty)		
	65-74	75-84	85+
Walking	14.2	22.9	39.9
Getting Outside	5.6	12.3	31.3
Bathing and showering	6.4	12.3	27.9
Getting out of bed or chair	6.1	9.2	19.3
Dressing	4.3	7.6	16.6
Using toilet	2.6	5.4	14.1
Eating	1.2	2.5	4.4
Preparing meals	4.0	8.8	26.1
Shopping	6.4	15.0	37.0
Managing money	2.2	6.3	24.0
Using telephone	2.7	6.0	17.5
Heavy housework	18.6	28.7	47.8
Light housework	4.3	8.9	23.6

Source: U.S. Department of Commerce, Bureau of the Census, Statistical Abstracts of the U.S.: 1988. 108 edition, Washington, DC: Government Printing Office. 1988. p. 109.

(Cox, 1991). Cox relates that the focus of gerontology, the study of aging, is not to extend the upper limit of human life, but to make the lives of older persons less burdensome physically and more rewarding emotionally. That is, not to extend lifespan, but to increase health span.

### Debilitating Diseases

Chronic diseases routinely cannot be cured, often lead to some degree of disability, and unless controlled or prevented, usually continue to affect a person until his or her death. The following disease descriptions are the dominant types of chronic health problems experienced by older persons that can lead to eventual death. They vary in their impact on mental and physical activity limitations, and the degree to which they may cause death.

#### Bone and Joint Disease

Aging is frequently accompanied by increased degeneration of the bones and joints, resulting in chronic pain and diminished activity. Osteoporosis, a degenerative disease of the bones and joints, affects one out of every three women and one out of every five men over the age of 50 (Kohut, Kohut, and Fleishman, 1987). In this disease, the bones become weaker and thinner due to interference in the bone rebuilding process, with backache and other skeletal pain the common symptoms (Beck, 1989; Kane, Ouslander, & Abrass, 1989; Tierney, 1982).

Kohut, Kohut, and Fleishman assert that osteoporosis can occur in any joint, but is most common in the knees, hips, and spine. Tierney suggests that years of flexing have worn down and loosened cartilage around the joints; and the presence of this stray cartilage, coupled with depleted lubricating fluid in the joints, makes for a slower-moving person. He suggests that movement is further restricted by ligaments that contract and harden with age.

### Coronary Heart Disease

Barrow (1989) maintains that with coronary heart disease, there is a deficiency in the amount of blood that reaches the heart, and this deficiency, which is the result of the narrowing of the blood vessels, causes damage to the heart tissue. He states further that although all the factors that lead to the narrowing of the blood vessels supplying the heart are not known, the major contributing factors are: (1) atherosclerosis - which occurs when fat and cholesterol crystals, along with other substances, accumulate on the interior walls of the arteries, thereby, reducing the size of these passageways; and, (2) arteriosclerosis - commonly called hardening of the arteries, which also adversely affects the supply of blood.

Kohut, Kohut, and Fleishman (1987) explain heart disease by suggesting that with advancing age, the heart becomes a poorer pumping mechanism, the myocardium is more irritable, and the conductive system functions less than perfectly. They

characterize the contributing factors to heart disease in the United States as longer lifespans, smoking, poor diet, and more sedentary lives. They present that cardiovascular disease in older persons may manifest as angina, heart attack, arrhythmias, congestive heart failure, hypertension, stroke, or peripheral vascular disease. They point out that an older person with any of these disorders may exhibit one or more of the following during acute or rehabilitative phases: social isolation, insomnia, anorexia, depressed and noncompliant behavior, despondency, or even suicide.

There has been recent conclusive evidence, as reported by the University of California at San Francisco, to show that cholesterol-lowering drugs along with dietary control can reverse heart disease in men and women (Kotulak, 1991). That is, reverse atherosclerosis and thus ward off heart disease. They reported that the rate of regression of coronary-artery deposits, about 2 percent over 26 months, is almost the same as the rate that cholesterol normally accumulates. These findings came soon after an earlier 1990 report disclosing that lowering the "bad" form of cholesterol, known as low-density lipoproteins, can retard the buildup of fatty deposits in the coronary arteries. Nutrition research has helped to educate people on how to reduce their own risk of heart disease and stroke.

Despite a downward trend in coronary disease death rates in the past decade, cardiovascular disease is still a leading

cause of mortality in older people, with ischemic heart disease accounting for 80 percent of all cardiovascular deaths (Robinson, 1989a). Dychtwald and Flower (1989) state that heart disease is responsible for nearly 45 percent of deaths among older persons.

### Cancer

As America debates the health care crisis, the time has come to look more closely at the biggest Medicare cost ticket item today, cancer. A recent report from the American Hospital Association (Meditrends, 1991-1992) states that per-case, Medicare payments for cancer now exceed those for any other disease, and are rising more rapidly than for any other disease. The report relates that the direct costs of cancer includes more than 50 million visits to physicians, a million operations, at least 750,000 radiation treatments, and uncountable diagnostic tests. By the beginning of the twenty-first century, the report disquietingly predicts that cancer will become the leading cause of death, bypassing heart disease, and the dominant medical specialty of all time.

Epstein and Moss (1991) argue that the incidence of cancer has escalated to epidemic levels. They state that since 1950, adjusting for the aging population, incidence rates for cancer of the breast, prostate, and colon in males have increased by 60 percent, and the mortality rate for non-localized breast cancer has remained a static 18 percent over the last 40 years. They report that cancer now strikes one in

three Americans, kills one in four, and caused half a million deaths in the year 1990.

Although cancer affects all age groups, the rates of incidence and mortality increase with each decade of life after age 50. This older age affliction may be in direct relationship to older persons having been exposed to carcinogens for longer periods of time (Kohut, Kohut, and Fleishman, 1987). The basic cancer treatment modalities are the same for patients of every age: surgical intervention, chemotherapy, radiation, interferon, interleukin-2, and gene therapy (Epstein & Moss, 1991; Kohut, Kohut, & Fleishman, 1987). Table 4 shows the incidence of cancer by age group and site of occurrence.

A description of the aspects of cancer that pertain to impairment, disability, and dysfunction was difficult to discern from this review. However, sketchy information from various sources implied that: Impairments involve (1) psychological stress and fear associated with diagnosis of cancer, (2) pain with certain cancers, (3) disfigurement with certain treatments, and, (4) overall weakness associated with general ill health, malnutrition, and chemotherapy; Disabilities may stem from (1) some cancer types, and (2) some cancer treatments (attitude and behavior due to mastectomy, and speech disability due to pharyngeal and laryngeal surgery); and, Dysfunctions may stem from the progression of end-stage cancer (Berg & Cassells, 1990; Coni, Davison, &



Table 4

INCIDENCES OF SELECTED CANCER BY AGE GROUPS  
PER 100,000 PERSONS

Cancer Site	Age Groups						
	50-54	55-59	60-64	65-69	70-74	75-79	80-84
(All)	499	780	1,125	1,506	1,898	2,187	2,433
Rectum	19.1	33.4	49.9	68.4	89.7	102.0	120.3
Lung	88.5	156.0	221.8	287.0	329.0	313.2	274.0
Breast	194.6	244.3	292.2	315.0	362.3	380.2	397.3
Cervix	17.1	19.0	19.1	19.9	20.0	19.7	18.9
Melanoma	17.5	20.2	21.5	22.0	23.3	24.6	26.8

Source: R. Berg and J. S. Cassells. The Second 50 Years: Promoting Health and Preventing Disability. Washington, DC: National Academy Press. 1990, p. 138.

Webster, 1986; Fries & Crapo, 1981; Hooyman & Kiyak, 1991; Kane, Ouslander, and Abrass, 1989; and Kohut, Kohut, & Fleishman, 1987).

Kohut, Kohut, and Fleishman (1987) relate that cancer patients may have to cope with stress, lowered self-esteem, listlessness, loneliness, and feelings of isolation following diagnosis; anticipatory grieving, shock, fear, denial, anger, and acceptance, especially if metastasis has been diagnosed; and changes in body image, weakness, anorexia, or sensory deprivation after treatment.

Epstein and Moss argue that many of the cancer treatments can add to the distress of cancer. They argue that many cancer treatments have become highly toxic, sophisticated, expensive, and a major source of profit for giant pharmaceutical companies closely interlocked with the cancer establishment. For example, they relate that some treatments are so toxic that other drugs have to be developed and used in an effort to counteract their side effects.

Decidely, the state of the environment, the type of cancer, the patient's current physical status, and other particulars determine the devastation of the disease and the choice of therapy. Nonetheless, a diagnosis of cancer can be devastating for any patient. To most people, cancer connotes terminal disease, mutilation, and death, and these constructs can cause physiological and psychosocial devastation for the strongest of us.

## Alzheimer's Disease

Alzheimer's disease is considered to be both an organic and a behavioral disease that destroys certain vital cells of the brain. It is recognized as the single most disabling intellectual impairment, and the quintessential disease of persons over the age of 60 years. It affects an estimated 4 million Americans at a cost of 80 billion dollars annually (Kotulak & Gorner, 1991c). According to Kotaulak and Gorner, unless there are scientific breakthroughs in Alzheimer's disease in the near term, as people continue to live longer the number of Alzheimer cases in the United States is expected to rise almost five fold by the year 2050, to an estimated 14 million cases.

Alzheimer's is a disease that results in progressive mental deterioration. It is characterized by such symptoms as memory loss, loss of thinking and reasoning capacity, forgetfulness, confusion, disorientation, mood swings, behavior and personality changes, impaired judgment and speech, restlessness, irritability, wandering, incontinence and eventual bizarre or inappropriate behavior (Barrow, 1989; Beck, 1989; Kane, Ouslander, & Abrass, 1989; Kohut, Kohut, Fleishman, 1987; Kotulak & Gorner, 1991c). There is, at present, no known cure, yet the disease presents itself as an illness and burden of enormous proportions and significance.

How is Alzheimer's disease relevant to the aging brain? Based on earlier aging theories, some scientists hold the view

that Alzheimer's disease can be considered premature aging of the brain, however, their evidence still remains inconclusive. In contrast to those aging theories, Jarvik (1988) believes that the normal aging brain, free of disease, may well function as effectively and efficiently as the normal younger adult brain, except for speed. Despite these conflicting views, it is fairly well established that Alzheimer's disease affects a large proportion of the aging population, and mental changes due to Alzheimer's disease may be attributed to aging.

Jarvik, although he disputes a direct link between aging and Alzheimer's disease, does make one interesting point about Alzheimer's disease in reference to aging. He considers that Alzheimer's disease may represent a final common pathway for a variety of different etiological factors ranging from genetic determinants to environmental toxins, nutritional deficiencies, and infectious agents, as well as combinations of one or more such factors. He continues to say that all these factors, together with the individual's life style and life-long experiences may be responsible for what we consider age-associated brain changes. He suggests that even a person's slowing down, so characteristic of the aging individual, may be a function of life style, nutrition, and inactivity with advancing chronological age. Jarvik (1988), and Kotulak and Gorner (1991c) believe that because scientists have documented stability in intellectual functioning for some individuals, it should be possible to achieve such stability

for most individuals, whether by means of genetic engineering or environmental manipulation.

Although Alzheimer research is still controversial, investigators have found single photon emission computed tomography (SPECT) capable of diagnosing Alzheimer's correctly in 85 percent of patients studied, and its accuracy increases to 95 percent in individuals with a family history of the disease (Meditrends, 1991). Meditrends reports that since some forms of Alzheimer's may be genetically transmitted, SPECT may be used in the future to screen asymptomatic people who are at risk. SPECT has been useful in distinguishing depression from dementia in older persons, and used to rule out other conditions whose symptoms mimic Alzheimer's disease.

In research studies, 20 percent of patients with symptoms of Alzheimer's were found to have other types of dementia, strokes, or diseases of the central nervous system or brain blood vessels (Meditrends, 1991).

Fueling the resurgence in brain research are two other large discoveries. The first discovery shows that most brain disorders appear to have a common cause: a series of chemical events which stimulate brain cells to cause a kind of biological short circuit (excitotoxic reactions). The second discovery reveals that the brain's built-in "fountain of youth" (neurotrophins) which pumps out chemicals, like nerve growth factor, can calm down cells and supervise their repair (Kotulak & Gorner, 1991c). Kotulak and Gorner show that while

there are many things that can trigger an excitotoxic reaction, the resulting damage follows a common pathway in nerve cells. There are many scientists who now believe that this common pathway can be blocked with neurotrophins. Scientists have already identified eight brain hormones, neurotrophins, that are able to reactivate processes in the brain which have been dormant since before birth. These hormones will allow the healthy part of the brain to take over the function of cells killed by stroke, head injury, or disease. These scientists hope that, eventually, people will have their neurotrophin levels measured at regular intervals to determine if they are at risk of developing Alzheimer's or similar neurological disorders.

In an attempt to prevent memory loss and degenerative brain disorders, scientists have also begun to experiment with infusing the hormone nerve growth factor directly into recognized deficient brains. To this end, an Alzheimer's mouse has been created by giving it a gene that makes beta amyloid, a protein thought to be responsible for the disease (Kotulak & Gorner, 1991c). Kotulak and Gorner reported that scientists, including those at the National Institute on Aging, proved that the genetically altered mouse displayed the typical plaques and tangles in brain cells that are characteristic of Alzheimer's patients. The same study showed that some scientists have created a version of dehydroepiandrosterone (DHEA) for testing on Alzheimer's

patients. Through genetic engineering, scientists may soon develop a better understanding of what causes Alzheimer's disease and new ways to treat it.

### suicide

On October 31, 1991, a Chicago ABC (American Broadcasting Company) television news report on suicide disclosed that since 1980, there has been a most disturbing and mysterious increase in the suicide rate in the United States among older persons. The journalist reported that the rate of suicide among people over age 65 has risen to between 20-23 percent. That is the highest rate of suicide in other age group. Also noteworthy in the same news report was that the highest suicide rate in the United States is found in older white males.

Miller (1979), and Butler and Lewis (1982) gave this explanation for the highest rates of suicide among older white males: men, they believe, generally experience the greatest incongruence between their ideal self-image (worker, decision-maker, or holder of relatively high status in society), and the realities of advancing age.

Hooyman and Kiyak (1991) explain that with age, the role of worker is generally lost, chronic illness may diminish one's sense of control, and an individual may feel a loss of status. But they also say that social isolation may have an additive effect on their incidence of suicide, particularly after widowhood.

Barraclough and his colleagues (1974) report that more than half of all suicides occur in persons suffering from depression. In their research study, they found that the increased risk of suicide among depressed people of all ages is 30 times that of the non-affectively ill population.

Conversely, recent reports and research findings on suicide have indicated that there is a misconception that suicide in older person result from serious illnesses, financial stress, or social isolation (Hooyman & Kiyak, 1991; Barrow, 1989; Katz, 1991). These reports show that at least two-thirds of the older persons who commit suicides are in reasonably good health and are under no unusual stress.

A few auto-euthanasia (suicide) promoters, for example, the Hemlock Society, argue that suicide is another way of actively preparing for death. They think that some patients try to end their lives while they are physically presentable, not wanting their families to see their degeneration, and to end unbearable pain and the discipline imposed by strenuous medical demands (Humphry & Wickett, 1987; Humphry, 1986; 1991).

Since suicide among older persons has been increasing since the early 1980s, clearly it proves that the trend started long before publicity about doctor assisted suicides or the publication of the current best selling book Final Exit. The New York Times in an article posted on 3 November 1991 entitled "Doctor In Suicides Assails U. S. Ethics,"



reported that Kevorkian, a physician, helped two women commit suicide a month earlier by providing them with suicide machines. Although doctor-assisted suicide is not legal in thirty one states in the United States, Kevorkian has been quoted to say that he supports doctor-assisted suicide for people who suffer from terminal or severely painful diseases. He called euthanasia the "last civil right," and criticized doctors for not defending it.

The suicide guidebook Final Exit by Humphry (1991), offers advice for terminally ill people on the methods of committing suicide and the best ways to carry them out. This book has stirred particular controversy because, in today's society, there remains much debate over a person's right to die and in what circumstances the deliberate ending of life is acceptable. Furthermore, it is of concern that this book will cause the suicide rate among older persons to increase even further, particularly since there is no cure for most chronic diseases which afflict older people.

Some health professionals anticipate an even higher rate of suicide for older persons when the post-World War II baby boomers reach age 65 years (Barrow, 1989; Dychtwald & Flower, 1989; Gottschalk, 1986; Hooyman & Kiyak, 1991). They reason that, statistically, baby boomers have already had higher rates of mental illness than their predecessors.

## Discussion

Although the dimensions of normal aging leading to debilitating diseases have been described here as a precursor to the health dimensions of the twenty-first century, it is natural to assume that the Americans of today are model aging and health representatives of the Americans of the future. However, it is expected that Americans of the twenty-first century will be healthier, more mobile, better educated, and more accustomed to change than their predecessors. These factors will decidedly affect the health status of twenty-first older Americans in a beneficial way. Moreover, the twenty-first century older person will have the advantage of new and continuing research and development, and health education and promotion.

Now in hundreds of laboratories around the world scientists are pursuing the quest to uncover the mysteries of aging. They are using the tools of genetic engineering to guide fresh insights into how our bodies age, and these are some of the astonishing results:

- Drugs that prolong youthfulness, like the human growth hormone DHEA, are in tests and have been keeping animals lean regardless of how much they eat; reducing cholesterol levels; and reducing risks of cancer, diabetes, and stroke. Some of these drugs are now moving through the governmental regulatory system toward approval.

- A massive effort is being mounted by mainstream science to develop revolutionary strategies of nutrition and exercise that will maintain the body's rejuvenative systems and stave off disease.
- Root causes of the classic disorders of aging, cancer, heart disease, stroke, Alzheimer's disease, osteoporosis, schizophrenia, paralysis, arthritis, Parkinson's disease, emphysema, cataracts, and even hangovers, are being understood for the first time, and new methods for prevention and cure are being developed and tested.
- Startling increases in longevity, up to twice the normal life span, are being produced in animals when their food intake is sharply restricted. Such dietary restrictions seem to enhance the body's anti-aging chemistry.

Many scientists believe that these new regimen will work in humans, and the National Institute on Aging has agreed to spend several million over the next few years to test their theses. However, despite the health advancements and educational acuity of the twenty-first century, it in no way assures that twenty-first century older Americans will not experience one or multiple chronic conditions, or that their health problems will be lessened as they age into and beyond the 85+ age range. Based on this normal aging and chronic disease literature review, it is reasonable to assume that the

propensity to illness increases with age, and poor health and advanced years are not necessarily inextricably intertwined. In short, ensuing chronic conditions may not be the result of "disease" but a result of the normal aging process. But even so, the level of disabilities depends on a number of factors, for example, genetic makeup, lifestyle, and the type and severity of the debilitating condition.

The dimensions of the aging process on the quality of life of contemporary older Americans a growing concern. Many contemporary older Americans contend that the identification and management of their health and psychosocial needs are often ill-conceived, poorly managed, and of lesser priority than the needs of younger Americans. Hence, it seems that the comfort level in living into old age in the twenty-first century will depend largely on the extent to which chronic conditions are studied, controlled, and prevented.

### **The Dimensions Of Geriatric Programs and Services**

The United States is in the midst of a demographic revolution with few parallels....There will be many more older people, with the largest number occurring after the year 2000....Those demographic facts have important implications for provision of health and human services to an older population and for allocation of public benefits and services....Until this decade, the traditional response has been to assume that the federal government has a responsibility for devising public benefits and services for older persons....The decade of the 1990s presents an opportunity to reassess the directions...and attempt to respond to social problems and use government as the primary leader in devising solutions.

(Torres-Gil, 1988, pp. 5-9)

Traditional settings for practicing health care have been the physician's office or clinic and the acute care hospital. However, the increasing demands for health care from the rapidly growing geriatric population have instigated a health care delivery revolution. While reimbursement issues, particularly the effects of prospective payment under Medicare, may have precipitated this revolution, it is now progressing far beyond financial concerns as physicians question many of their prior assumptions. For example, new perspectives on quality of care, clinical outcomes, quality of life for the patient, appropriate level of care, intensity of needed service, severity of illness, "medically necessary" care, risk management, and iatrogenesis (Council on Scientific Affairs, 1990a, 1990b, 1991).

The potential doubling of the older population in the next 50 years inspires a closer look at the structure and operations of the prevailing geriatric programs and services. Some of the questions prompted are:

- Can the prevailing geriatric programs and services survive the financial ills now afflicting them?
- Can the current American health care system accommodate the needs of the projected 68.1 million older Americans in the year 2040?
- Will the medical profession, natural and social scientists, health and social providers, third-party payors, government policymakers, and society-at-

large become challenged to better understand and deal with the concepts of aging in the interest of the eminently majority population of Americans?

One distinction of this realization that geriatric programs, services, and financing may be inadequate and inappropriate to meet the needs of older Americans in the twenty-first century is the fact that most of the prevailing well-structured health care programs and services, including governmental financing for the programs and services, are based on a concept of acute medical problems and not on the chronic diseases that afflict most older people. Moreover, many of the psychosocial programs and services are also structured to favor medically-oriented services, and are often underfunded by an unstructured assortment of public agencies, community organizations, and local providers.

Shore (1979) relates that the medical hospital model of acute care maintains the centrality of the physician, and presupposes corrective benefits when the medical therapy is ordered or directed under the tutelage of a physician. He considers that, although inappropriate, long-term care is based on this model purely for economic reasons.

Society is immobilized by the lack of public policy which defines what an older person is worth in our society. Being utilitarian, we invest in things that have a productive future. Sick old people are consumers - no longer producers. What are they worth? How long do we support them? How open-ended is it? The dilemma is that as we extend life and conquer disease; as we invent pacemakers and pressure breathing machines, we increase the cost of support. If we use the hospital model we can

arbitrarily limit benefit days and thus theoretically dispense with our obligation. (Shore, 1979, pp. 346-347)

Today, with the obvious increase in longevity and improvements in the health status of older Americans, more socially-oriented provisions in geriatric programs and services are becoming necessary to sufficiently maintain their reasonable existence. Although fragmented, many programs and services have been expanded to include geriatric outpatient services, continuum of care and rehabilitative services, non-institutional health assessment and case management services, health and wellness programs, social support programs and services, various lifestyle services, and transportation.

Descriptions of some prevailing geriatric programs and services outside the physician's office or clinic follow. They are organized into the categories of: (1) governmental programs and services; (2) community health programs and services; (3) community social programs and services; and (4) geriatric programs and services outside of the United States.

### **Governmental Programs and Services**

Nearly every person 65 years and over is covered by some federal, state, and locally subsidized program, from financial benefits, to health and social services, housing, food, and energy-assistance. Some governmental programs and services are age-based such as Medicare, but others, such as Supplemental Security Income (SSI), food, and housing are based on financial need. The eligibility criteria for most

elderly governmental subsidized programs and services is usually that an individual must be at least 65 years of age.

### **The Social Security Act**

The Social Security Act of 1935 was the first major policy enacted for older persons. Justified as a "pay as you go" system of financing, the act is based on an implicit guarantee that the succeeding generation will provide for its elderly through their Social Security contributions as employees. The original provisions of the act were intended to be the beginning of a universal program. In 1950, however, the Social Security Act was amended to provide financial assistance to states that choose to pay partial health care costs for needy older persons (Dychtwald & Flower, 1989; Hooyman & Kiyak, 1991).

### **The Older Americans Act**

The Older Americans Act was adopted by the United States Congress in 1965, amended in 1981, and contains six major sections called titles, which outline the intentions and objectives of the law (Hooyman & Kiyak, 1991). Some of the most significant titles are:

Title II - Establishes the Administration on Aging (AOA), the structure designed to administer the programs and services the Act mandates.

Title III- Provides for the distribution of money to states and communities for the establishment



of state and area agencies on aging. These agencies are responsible for planning and coordinating social services for the elderly in local settings, and for disseminating information about available social services. If a local community or state county has a Council on Aging, it probably receives some federal funds through Title III.

Title IV - Provides for training of people who work in the field of aging as well as for research and education on aging.

Other titles in the Older Americans Act provide for the establishment of multi-purpose senior centers that serve as the focal points in communities for the development and delivery of social services.

In short, the titles of the Act are intended to achieve these objectives for older persons: adequate income; good physical and mental health; suitable housing at reasonable cost; full services for those who require institutional care to restore or maintain their health; equal employment opportunities; retirement with dignity; a meaningful existence; efficient community services; benefits of knowledge from research; freedom, independence, and individual initiative in the planning and management of one's life (Barrow, 1989; Hooyman & Kiyak, 1991).

## Medicare

The purpose of Medicare, or Title XVIII of the Social Security Act of 1965, is to provide older persons with financial protection against the cost of hospital, nursing home, and physician care. The Medicare program has two basic components (Beck, 1989; Kane, Ouslander, & Abrass, 1989; Larson, 1987; U. S. Department of Human Services, 1989a, 1989b; 1989c; 1989d):

Part A - (Hospital Insurance or HI) covers hospital costs, hospice costs, and short term (less than 100 days) nursing home and home health costs. Part A is financed by a portion of the Social Security payroll tax.

Part B - (Supplemental Medical Insurance or SMI) covers physician services, hospital out-patient services, laboratory, and other medical services. Part B is partially financed (25 percent) through monthly fees paid by the recipients and partially (75 percent) through general tax revenues.

A system of prospective payment (PPS) was instituted in 1983 to reverse the cost incentives for hospital decisions provided by the previous fee-for-service payment plan. Instead of reimbursing providers for each service for each patient, the federal Health Care Financing Administration determines payment by the diagnostic category in which each

patient is placed (Hooyman & Kiyak, 1991). These categories, which are used to classify patients, and thus, set Medicare payments prior to the patient's admission, are called diagnostic related groupings (DRGs). Under the prior cost-based reimbursement system, hospitals were paid more if they provided more and longer services. Now, under the prospective payment system, a hospital that keeps patients longer than the pre-determined time for the diagnostic categories, orders unnecessary tests, or provides care inefficiently will be penalized financially (Hooyman & Kiyak, 1991). Likewise, hospitals that provide care at a cost below the established DRG fee can "pocket the difference."

The Health Care Financing Administration on November 25, 1991 published the final fee schedule for paying physicians for services rendered to Medicare beneficiaries, a regulation that many have described as the most significant change in Medicare policies since the adoption of the prospective payment system for inpatient hospital services in 1983. The new fee schedule replaces the existing "reasonable charge" methodology with a uniform system of relative prices that reflect, at least in theory, the resource costs associated with each service, that is, physician work, overhead, and malpractice expense (McDermott, Will & Emery, 1991). Implementation of the new system will begin on January 1, 1992, and is scheduled to be fully phased in by January 1, 1996.

The Medicare physician fee schedule, often referred to as the resource-based relative value scale or RBRVS, is expected to dramatically shift the Medicare payments for services. It is expected to shift funds away from the surgical and hospital-based specialties and into primary care, thereby, increasing payments to rural physicians at the expense of physicians located in large institutions or in urban areas. Hence, because a hospital's reimbursement for many outpatient services is linked to the rates paid to physicians, the new rates will have a direct impact on a hospital's bottom-line.

In addition to affecting physicians, it will apply to numerous other professionals when they provide Medicare-covered services, such as dentists, optometrists, oral surgeons, podiatrists, chiropractors, independently practicing physical and occupational therapists, and certified registered nurse anesthetists (McDermott, Will & Emery, 1991). It will apply to physician assistants, nurse practitioners, and nurse midwives, but at a specified percentage of the fee schedule.

Medicare was originally designed to cover about 70 percent of the cost of health care for older Americans, however, today, older persons have a greater percentage of out-of-pocket expense for health care than when Medicare was first initiated. A social value underlying Medicare is that society ensures that the elderly are personally entitled to the benefit of health care. But this perspective of Medicare is not shared by some people. For example, Hooyman and Kiyak

(1991) take a different view of the value of Medicare. They reflect that the shift of financial responsibility for geriatric health care from the family to the state was not socially motivated, but grew out of a compromise with the well-organized medical profession which successfully opposed comprehensive health insurance for the general public.

Barrow (1989) argues that both Medicare and Medicaid are crisis oriented, wherein the patient seeks treatment, and the doctor is expected to locate the problem and provide a specific cure. He argues further that low incomes adversely affect the quality of medical care received. For example, he notes that treatment for many acute types of illness tends to be equally available to rich and poor alike, but treatment is more available to those who can afford private insurance coverage to complement Medicare. Another view of the dark side of Medicare is that there are Medicare limits on long-term care and home care services which older persons need to help control chronic conditions, maintain independent living, and maintain self-esteem. Medicare also does not cover eye examinations and eyeglasses, hearing examinations and hearing aids, and routine dental treatments and dentures which most older persons require (Border & Dokas, 1989).

### **Medicaid**

Medicaid, a federal and state program under Title XIX of the Social Security Act, is intended to provide medical assistance for the "medically needy" regardless of age,

however, many recipients are older Americans. Medicaid is administered within broad federal requirements and guidelines by each state within the United States and its territories (Watson, 1986). For example, state participation in the federal Medicaid program is optional. Eligible individuals include recipients of Aid to families with Dependent Children (AFDC) and Supplemental Income (SSI), and may include those receiving other cash assistance (Barrow, 1989; Beck, 1989; Kane, Ouslander, & Abrass, 1989).

Medicaid covers a wide range of medical services, including hospitalization, physician care, laboratory, x-rays, and long-term nursing home care. 75 percent of the Nursing home Medicaid costs are for the elderly, and the biggest single expense is consumed in their last year of life (Beck, 1989; Berg & Cassells, 1990; Dychtwald & Flower, 1989; Hooyman & Kiyak, 1991; Scitovsky, 1985).

### **Community Mental Health Centers Act**

This Act authorizes agencies to provide comprehensive mental health services in communities. It requires that grantees include programs of specialized services for the mental health of children and of older persons (Barrow, 1989). Services are limited, and fees are based on a sliding scale.

### **Community Health Centers**

Community health centers were authorized by Title III of the Public Health Service Act. The Act provides for grants to

public or private nonprofit agencies to support the delivery of health services to geographic areas with a shortage of personal health services (Hooyman & Kiyak, 1991). These services are available to persons of all ages.

### **Health Promotion and Wellness**

Health promotion is a term used to describe a spectrum of educational and wellness activities, and preventive measures to foster optimal health and wellness. These activities are intended to increase an awareness of factors that affect health, and to offer help in influencing behavior towards functional independence and overall well-being.

Education can be fostered by offering health classes, special presentations, fairs, workshops, and by establishing a community aging resource center; Wellness activities usually are interactive, and typically are designed to increase fitness through exercise programs, nutrition, peer support, and behavior adjustment workshop; Preventive measures aim to detect health problems before they become serious through screening, provide training for medical emergencies, or encourage healthier lifestyles to prevent the occurrence or exacerbation of illness (Dychtwald & Flower, 1989).

### **Health Screening**

Health screening programs are intended to help prevent, arrest, postpone, or minimize health problems through early detection, diagnosis, and treatment. Screening may focus on

four types of problems (Dychtwald & Flower, 1989):

- Physical conditions - screening for glaucoma, hypertension, certain cancers, hearing disorders, and diabetes.
- Mental disorders - screening may include depression and senile dementia.
- Nutritional deficiencies - screening for problems that may be caused or exacerbated by malnutrition.
- Drugs and drug interactions - screening for drug reaction or interactions.

### **Nutrition Program**

Congregate nutrition programs are supported by the Older American Act and operate throughout the country. Many or most of the nutrition sites offer hot meals, transportation, information and referral services, nutrition education, health and welfare counseling, food shopping assistance, and recreational activities (Barrow, 1989). In addition, many provide a nutritionally planned meal, and all provide a setting for socially meaningful interaction (SMI). The nutrition sites are often located in churches, schools, and community centers.

### **Senior Centers**

Senior centers operate both privately and publicly, however, nearly all are supported by some public funding under the Older American Act. Other more commonly revenue sources



include United Way (a charity fund), private donations, and nominal fee charges (sometimes membership).

Senior centers vary in form and function. Some operate through community centers or religious establishments, while others are freestanding. Nearly all centers provide a site to congregate and socialize, many offer one or more meals daily, and many sponsor various wellness, health education, and medical services (Dychtwald & Flower, 1989).

Typical health care services offered at a senior center include health screening (especially for hypertension and glaucoma), health promotion, wellness classes, and health information and referrals. Some teaching hospitals assists in providing such services at low or no charge, both as a community service and to encourage seniors to use the sponsoring institutions when medical necessity arises.

### Adult Day Care

The Older Americans Act partially funds multipurpose day-care centers. The adult day-care center, a day program for older adults in a group setting away from home, now represents an alternative for many older persons. It is part of a long-term care continuum, that blends psychosocial and health services. Adult day-care centers provide activities that encourage the elderly to maintain their own level of physical well-being, and promote a renewed interest in life through various social, emotional, and psychological support services (Hooyman & Kiyak, 1991; Kohut, Kohut, Fleishman, 1987).

Kohut, Kohut, and Fleishman claim that the care provided in a day-care center is not a substitute for 24-hour institutionalized care, however, it is a viable alternative for those elderly who do not require full-time care. Older persons prefer to remain in their own communities and homes, and when given the option, prefer these type of alternative programs to institutionalization. Adult day-care programs can include health, social, nutritional, and recreational services, restorative therapies, and transportation.

Demonstration projects have been targeted by the federal government as alternatives to institutional care for older persons. One of the primary purposes of the demonstration projects was to test the feasibility of developing prospective risk capitation reimbursement methodologies. As a result, demonstration projects were funded beginning in 1980 to enroll Medicare recipients, thereby assuming risk for older persons. Some of the federally funded demonstration projects are described below.

### **Social Health Maintenance Organizations**

The Social Health Maintenance Organizations, or SHMOs, are demonstration projects explored by the federal government. The SHMOs provide comprehensive social and home health services, including long-term capitated service delivery mechanisms for older Americans (Galblum & Trieger, 1982; Hooyman & Kiyak, 1991; Leutz, Greenberg et al, 1985). The SHMO concept expands on the Health Maintenance Organization's

(HMO) medical model. SHMOs address both the fragmentation of service providers and the fragmentation of funding sources by offering a coordinated care continuum with a central reimbursement mechanism.

The SHMO concept is distinctive in the following respects (Federal Register, 1986):

- A full spectrum of acute and long-term care services is offered by provider agencies linked together in formal relationships with joint responsibility for outcomes;
- The SHMO manages the care of older persons across the health care service spectrum;
- Care is financed on a prepaid, capitated basis, funds are pooled at the SHMO level, and all premium and payment structures are established in advance; and,
- The SHMO assumes financial risks for care, and all affiliated providers share in the gains or losses from the operations.

In 1980, the Health Care Financing Administration (HCFA) awarded a planning grant to the University Health Policy Consortium at Brandeis University to develop the SHMO concept. Four demonstration sites were selected: Metropolitan Jewish Geriatric Center, Brooklyn, NY; Kaiser Permanente Medical Care Program, Portland, OR; Ebenezer Society, Minneapolis, MN; and, Senior Care Action Network, Long Beach, CA.

**program of All-inclusive Care for the Elderly (PACE)**

PACE (1991) is a nationwide effort to replicate the comprehensive service and financing model of long-term care created by On Lok Senior Health Services in San Francisco (PACE, 1991). It applies the managed care solution developed by health maintenance organizations (HMOs) to long-term care. PACE (1991) describes its federally funded demonstration program as one that provides complete medical and supportive care that is tailored to the specific changing needs of the frail elderly. It emphasizes independence, continued community residence, family support, and minimal disruption of the older person's life. It maintains continuity of care through a multi-disciplinary team, and fosters cost controls through a fixed capitation rate and assumption of financial risk by providers.

The PACE services include in-home services, day health care, primary care, acute hospital care, laboratory, x-ray, and ambulance services, skilled nursing facility care, medical specialty services, and restorative and supportive appliances.

**Senior Actualization and Growth Exploration (SAGE)**

The SAGE project is a holistic health and human development program for the elderly that originated in Berkeley, California in the 1970s. It is funded by a grant from the National Institute of Mental Health. Its purpose is to enhance all aspects of physical functioning (body), as well as improve mental skills and inner awareness (mind) (Barrow,

1989; Dychtwald & Flower, 1989). Barrow, Dychtwald, and Flower relate that through yoga, stress-reduction techniques, meditation, massage, art therapy, and a spiritual or soul-searching emphasis, older people have been known to show as much change or growth in body and mind as young people.

The demographic trends and diversified needs of older Americans, compounded with the increasing awareness that financial resources are limited, have been pressuring the federal government and other providers of geriatric care to adjust to more complex provisions of care. The most noticeable and forward developments are the trends towards psycho-social services and the continuum of services. A network of services and facilities, both public and private, are expanding at a rate that could surpass the growth of the nursing homes in earlier decades. Following are descriptions of some of the federal programs and services.

### **Social Care**

Title XX was established in 1974 to provide social care to older persons, and relates to a broad range of services. It extends from recreational, nutritional, and health promotional care provided at senior centers, to transportation and day care for ambulatory chronically ill older persons (Hooyman & Kiyak, 1991). It also includes personal care services in the home such as grooming, home maintenance, and housekeeping, shopping services by homemakers and chore workers, and home delivered meals.

### Home Delivered Meals

The success of demonstration projects in the 1960s resulted in federal funding of home delivered meals, and several years later, subsequent funding of congregate (group) nutrition projects. Funds are available to all states under the Older Americans Act (Title VII) to deliver meals to the homebound elderly or to serve meals in congregate sites. The Meals on Wheels program is an example of this type of service. This program delivers meals at a minimal charge to the homebound elderly who are unable to prepare their own meals, to promote better health and to reduce social isolation.

### Hospice Care

Hospice programs offer an integrated approach to terminally ill persons. In these programs, the medical and nursing staffs, chaplains and visiting clergy, and social service staff members work together to meet the physical, spiritual, and psychological needs of the patient (Barrow, 1989). Hospice care for the terminally ill persons is provided in separate housing facilities, or in hospitals and nursing homes where a certain number of hospice beds may be available. A six-month's stay is usually the eligibility criteria for admission to the hospice, and family members may participate in caring for the terminally ill person during that period. Table 5 summarizes the governmental policies on geriatric programs and services through 1991. Figure 10 shows the 1991 Federal outlays that benefit older Americans.

Table 5

HISTORIC DEVELOPMENT OF GOVERNMENTAL POLICIES  
ON GERIATRIC PROGRAMS AND SERVICES

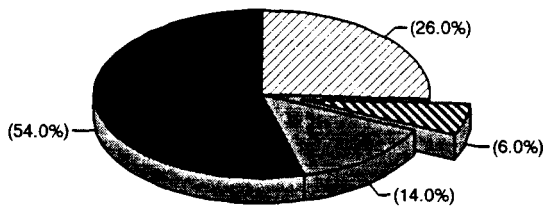
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1935	Social Security Act.
1948	Federal Security Agency (FSA) set up Task Force on Aging.
1950	FSA calls the first National Conference on Aging.
1950	Amendments to assist states with health care costs.
1954	Hill-Burton Program to assist health care costs.
1959	Section 202 Direct Loan Program of the Housing Act.
1960	Extension of Social Security Benefits.
1961	Senate Special Committee on Aging.
1961	White House Conference on Aging.
1965	Medicare (Title 18) and Medicaid Programs (Title 19).
1965	Older Americans Act.
1965	Establishment of Administration on Aging.
1967	Age discrimination in employment made illegal.
1971	White House Conference on Aging.
1972	Social Security Amendment.
1972	Nutrition Bill for the Elderly.
1973	Federal Council on Aging established.
1974	Supplemental Security Income.
1974	Title XX - Social Services legislation.
1974	House Select Committee on Aging.
1974	Establishment of the National Institute on Aging.
1974	Congress authorizes elderly transportation program.
1975	Health Services Program for mental and home health care.
1977	Social Security Amendment.
1978	Change in mandatory retirement age from 65 to 70.
1978	Older American Act authorizes home delivered meals.
1980	Federal measures to control health care expenditures.
1980	Omnibus Reconciliation Act of 1980.
1981	Third White House Conference on Aging.
1983	Prospective Payment System (Diagnosis Related Groups).
1983	Resource Utilization Groups.
1985	Consolidated Omnibus Budget Reconciliation Act of 1985.
1986	Omnibus Budget Reconciliation Act of 1986.
1986	Elimination of mandatory retirement.
1987	Nursing Home Reform Act.
1987	Omnibus Budget Reconciliation Act of 1987.
1989	Medicare Catastrophic Health Care Legislation passed.
1990	Medicare Catastrophic Health Care Legislation repealed.
1990	Omnibus Budget Reconciliation Act of 1990.
1991	Medicare Physician Fee Schedule.

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Figure 10

## FEDERAL OUTLAYS BENEFITTING OLDER PERSONS AGE 65+: 1987



Source: Aging America: Trends and Projections. 1991 Edition.  
Prepared by the U.S. Senate Special Committee on Aging,  
the American Association of Retired Persons, the Federal  
Council on Aging, and the U.S. Administration on Aging.  
Printed by: U.S. Department of Health and Human Services.



### Respite Care

Respite care provides support for the caregivers of older persons, to allow them, periodically, to have time to be away from the continuous responsibilities of caring for the patient (Reichel, 1989). In this circumstance, an older person can remain in their own home, and avoid problems of confusion that could occur when taken from familiar surroundings. The older person and their family can also avoid the trauma of placement in a nursing home. Some conditions such as Alzheimer disease or senile dementia, in which there is considerable confusion present in older persons, demands that someone be in constant attendance to prevent the person from "wandering," and thus, getting lost or even injured while alone inside or outside the home (Reichel, 1989).

### Community Health Programs and Services

In the 1980s, cost containment was the watchword for geriatric programs and services. Aging advocates urged more funding and legislation, and the Social Security trust fund was being threatened by a near-term deficit. As a result, cutbacks were made in federal program spending, and the critically needed programs and services to meet the needs of the increasing population of older Americans were left to local communities for support.

Older persons as a group normally consume more health care services than the population as a whole. They account for a third of all inpatient days of hospital care, and for 36

million hospital outpatient visits (Eisdorfer & Maddox, 1988). This disproportionately high consumption of medical care may be largely due to a greater prevalence of chronic conditions than in the younger population, and to the severity of many acute episodes in later life (Dychtwald & Flower, 1989; Scitovsky, 1985). Following are some of the community health care programs and services that older Americans utilize.

### Hospitals

The hospital is the primary source of health care services for older persons. According to Brody and Persily (1984), most of the elderly hospital admissions are for acute episodes of chronic problems. Their study showed that 4 million (20 percent) of all older persons use inpatient services at least once a year, and 27 percent of this number return at least twice in the ensuing year. In addition, they found that admission rates per thousand in the over 65 age group have risen 41 percent in just 10 years.

Adding to the admission rates are the older persons who are being shockingly abandoned in small but growing numbers on hospital emergency room doorsteps across the country. Hey and Carlson (1991) reported that many adult children have come to regard aging parents as a nuisance, and are exhausted by the pressures of caregiving. As a result, they are increasingly leaving the elderly at emergency rooms, and, are either "bolting" away or telling hospitals that they are relinquishing all responsibility for their aging relatives.

Until recently, the traditional approach to the treatment and care of chronic illness among the elderly focused primarily on institutionalization as a long-term care solution. Today, in addition to providing acute care to older persons, many hospitals are only the points of access. Aside from emergency room access by the poor and neglected elderly, teaching hospitals, particularly, offer geriatric health care programs in an ambulatory outpatient setting.

### Community Outpatient Clinics

A number of teaching hospitals have established outpatient geriatric clinics that offer an alternative to institutionalized care for older persons. They often provide multidimensional functional evaluation to assess the capacity of the geriatric patient (Kane, Ouslander, & Abrass, 1989). They generally emphasize treating both the health and social needs of the older person. In this model, services are generally offered for: diagnostic assessment; treatment for acute types of illnesses; restorative services and progressive therapies; treatment for acute and chronic psychiatric dysfunctions (depression, chronic brain syndrome, and psychosis; prevention and treatment of social breakdown syndrome; treatment for malnutrition; and education of the family and community (Barrow, 1989; Eisdorfer & Maddox, 1988; Hooyman & Kiyak, 1991; Kohut, Kohut, & Fleishman, 1987).

Outpatient clinics also provide comprehensive discharge planning to assist older patients in receiving coordinated and

continuing care after discharge from the hospital, either through the home care program of the hospital or by means of referral to the appropriate facility or agency. The geriatric units are most often staffed by an interdisciplinary team composed of physicians, nurses, social worker, and physical or occupational therapists (Kane, Ouslander, and Abrass, 1989).

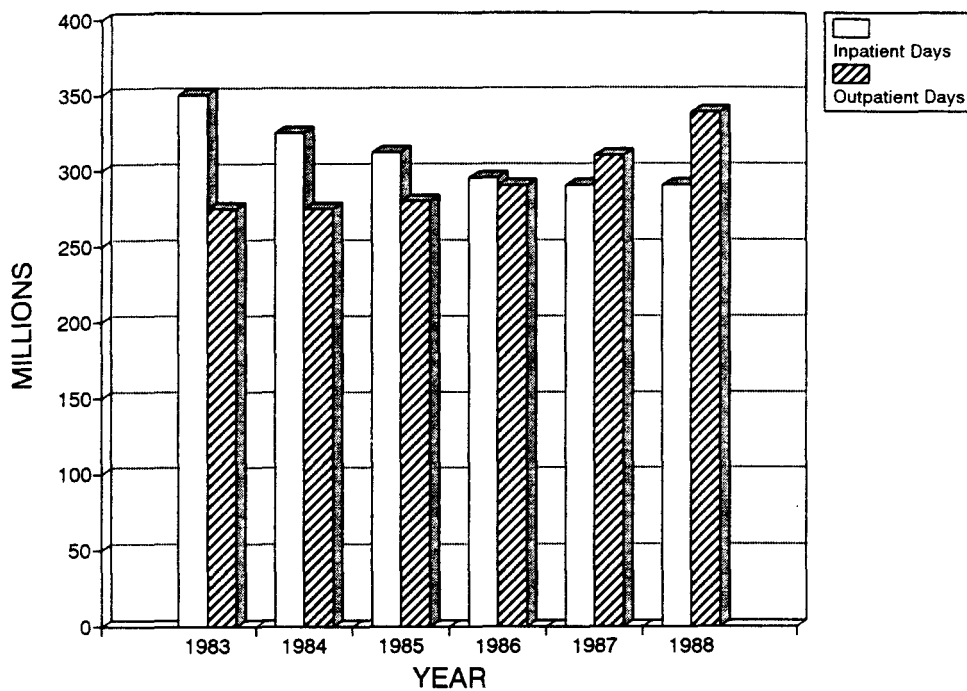
The American Hospital Association-Division of Clinical Services and Technology (Meditrends: 1991-1992, 1991) reported that by the end of 1990, United States hospitals provided more than 350 million outpatient visits, representing a rate of growth in ambulatory care that far exceeded the expectations of many health care professionals. Figure 11 shows the nation's growth rate of outpatient visits as compared to inpatient days, 1983 through 1988. Since lifestyle changes and new medical breakthroughs and treatments are preventing some diseases and controlling many others, causing older Americans to become increasingly less frail, inpatient admissions may soon become the exception to health care.

### Home Care

Home care can be defined as the provision of equipment and services to the patient in the home for the purpose of restoring and maintaining his or her maximal level of comfort, function, and health (Council on Scientific Affairs, 1990a, 1990b; Council on Scientific Affairs et al, 1991). Medical services can include diagnostic, therapeutic, rehabilitative, and long-term maintenance care.

Figure 11

## U.S. HOSPITAL DAYS VS. OUTPATIENT VISITS



Source: American Hospital Association - Division of Clinical Services and Technology. Chicago: American Hospital Association Services, Inc. 1991. p. 37.

Home care as a model is a recently renewed concept, therefore, more clinically oriented research is needed on patient care in the home before any assurance can be made as to what home interventions are most effective and medically appropriate. Most of the research on home care in the past has been focused on cost rather than clinical practice and outcome (Council on Scientific Affairs, 1990a, 1990b). Nonetheless, it is safe to say, that in many cases, persons discharged from the hospital can be sent home and cared for by health care professionals and auxilliary people such as homemakers and home health aides.

Until recently, people receiving home care needed only monitoring or simple nursing care such as dressing changes or parenteral medications (Reichel, 1989). Reichel states that with the advent of Diagnosis-Related Groups (DRGs) and other prospective payments systems, people are being discharged from hospitals "quicker and sicker," and needing much more intensive nursing care and attention from specialized physicians. He relates that the care and attention can involve, in many cases, hyperalimentation, respirators, tracheostomy, and similar complex problems and equipment.

If Reichel is correct in his assessment of home care, then home care costs will accelerate in the same way as in other health care costs due to the need for skilled health care professionals over an extended period of time. Home health care usually involves services from one or a

combination of providers, such as a registered nurse, licensed practical nurse, home health aide, homemaker, therapist, social worker, and supervision by a physician.

The Council on Scientific Affairs and Council on Medical Education (1991) relate that although there are now many physician objections to home health care, some of the medical objections can be addressed through education. They suggest that the biggest obstacle is the problem of inadequate reimbursement, and this problem is more complex because it must be addressed through governmental policy changes.

Clinical outcome studies of the Medicare model provision of home care, although few in number, indicate decreased hospital length of stay, nursing home admissions, mortality, and cost. Conversely, there is increased functional status, rate of role resumption, and no increase in number of "untoward" clinical events" (Council on Scientific Affairs, 1990a, 1990b).

### Nursing Homes

Nursing homes provide essentially three levels of nursing care: skilled, intermediate, and custodial nursing. Medicare reimburses for a limited number of days per year in a skilled nursing facility, usually following an acute hospitalization (Reichel, 1989). Medicaid, a joint program between the federal government and the states for the medically indigent, finances the majority of nursing home care. The program reimburses skilled and intermediate levels of care that require registered nurse supervision, and are licensed by the

state (minimal standards to operate) and certified to receive federal funds for Medicare and federal and state funds for Medicaid (Reichel, 1989).

Although a small number of people age 65 years and over (5 percent or 1.3 million) lived in institutions in 1980, primarily nursing homes, this number has since increased dramatically with age, ranging in age from 75 to 84 years, and is now 23 percent for people 85 years and over (American Association of Retired Persons, 1985).

Nursing homes, which are already having difficulty providing adequate medical and nursing care for the chronically ill, are having increasing difficulty in providing care for the "sicker" patients who are being released early from hospitals. Fitzgerald et al (1988) in studies of clinical outcomes of older patients with hip fractures before and after prospective payment have clearly documented a deterioration in the amount of rehabilitative care provided. They documented a much poorer outcome in terms of ambulatory ability, function, and independence. They believe the deterioration was due not only to the early discharge from hospitals, but to a lack of adequate rehabilitative programs in the nursing homes as well.

For various asunder reasons, for example, a greater need for skilled care and high technology equipment, the cost of care in nursing homes is rising at an alarming rate, so that both federal and private organizations are mobilizing



resources to provide care that will enable older persons to remain in the home as long as possible. These groups are hopeful that nursing homes will be reserved for the people who can no longer be cared for in the home.

### **Pharmaceutical Services**

Older persons as a group are the heaviest users of prescription and over-the-counter drugs. More than 75 percent have at least one prescription annually, compared with less than 60 percent of the total population (Technology and Aging, Office of Technology Assessment, 1985). According to the Office of Technology Assessment, 90 percent of the prescriptions and over-the-counter medications are for long-term use to address chronic conditions.

### **Physician Services**

Geriatric medicine is an integral part of internal medicine and family practice. Physicians in these practices are concerned with the diagnostic, therapeutic, preventive, and rehabilitative aspects of illness. The commitment and competence of the physicians in these fields who treat older persons often depend on the medical education and level of training received (Geriatric Education, 1987; Committee on Leadership for Academic Geriatric Medicine, 1987). Following is a description of the different types of geriatricians and the corresponding level of training as defined by the American Geriatric Society, 1991; Certification in Geriatric Medicine

jointly developed by the American Boards of Internal Medicine and Family Practice, 1991; and the American Board of Family practice and Internal Medicine, 1991).

- Board Certified Geriatrician - The Examination for a Certificate of Added Qualifications in Geriatric Medicine is offered by the American Board of Internal Medicine and the American Board of Family Practice to individuals Board certified in either internal medicine or family practice, who meet other eligibility criteria set by the Boards. To be eligible to sit for the exam, an individual must have completed a fellowship program in geriatrics or have proven clinical experience in geriatrics (training and practice pathways). The first examination was given in 1988, the next in 1990, and it will be given again in April of 1992. The 1994 examination will be the last examination given in which the pathways ("grandfathering") will be offered.
- Fellowship Trained Geriatrician - Currently, there are one and two year (and longer) fellowships in geriatrics. The Accreditation Council for Graduate Medical Education has been certifying fellowship training programs in geriatrics only for about two years. People who have completed a fellowship in geriatrics may or may not be Board certified in geriatrics, although most individuals who have

completed a fellowship program have taken or plan to take the certification examination.

- "Self-Proclaimed" Geriatricians - There are many members of the American Geriatric Society who are not Board certified or fellowship trained, but who consider themselves geriatrics practitioners by virtue of one or more of the following: clinical practice is centered on geriatrics patients; self-educated in geriatrics through reading journals, attending continuing education programs, taking part in the American Geriatric Society self-assessment program (Geriatrics Review Syllabus, 1989); advanced to an academic position in geriatrics prior to the time that geriatrics fellowship programs were established.

It is important that physicians who treat older persons understand and relate to their ailments, because, on average, they have a higher use of physician services than other groups have (Barrow, 1989; Dychtwald & Flower, 1989; Jernigan, 1984). The 1981 National Ambulatory Medical Care Survey reported that the elderly were the least likely age group to experience a short physician visit (under 10 minutes of face-to-face contact with the doctor), and the most likely to schedule a return visit.

### Nurses

Although there are many levels of skilled nurses care for older persons, the gerontological nurse specializes in caring

for older persons. They usually have advanced degrees, at a minimum a master's degree, and usually in gerontological nursing. The need for their skills are critical given the demographic shifts in health care towards an Aging society. The "healthier" older person, particularly, requires the comprehensive care that they can provide: promotion and maintenance of health, physical and mental assessment, timely intervention, rehabilitation, ongoing education, and referral.

The emphasis of the gerontological nurse is placed on maximizing functional ability in the activities of daily living; promoting, maintaining, and restoring health including mental health; preventing and minimizing the disabilities of acute and chronic illness; and maintaining life in dignity and comfort until death (American Nurses Association, 1987). Their standards and scope allow them to practice in any setting, for example, the nursing home, the hospital, the client's home, the clinic, and the community. Their focus is on the client, and the client's family or significant other.

Independent nurse practitioners are relatively few in number and have limited influence in the health care decision-making process of older persons. This generally includes the specialty trained gerontological nurse. The Kellogg Foundation (health care foundation) expects this situation to change as it becomes evident that nurses, particularly the more highly trained gerontological nurses, can serve as primary decision-makers for the care of older persons (Ferber, 1985).

Ferber believes that nurses are better attuned to a holistic approach in viewing the patient as a whole person than most physicians. He believes that nurses are more proficient in patient assessment (which some M.D.s take to mean diagnosis) because patients, especially the elderly, confide in them more freely. Additionally, when given the opportunity to alter the use of doctors' standing orders for prescriptions, nurses have demonstrated that they can hold down overmedication and oversedation for the elderly, with therapeutic advantages and cost savings.

Ferber relates that some people think there has been some softening of doctors' opposition to giving nurses greater prerogatives. However, Ferber cautions that this has occurred when nurses work with or for physicians, with no threat to diluting any doctors' control or affecting their incomes.

### **Physical Therapists**

Physical therapists can practice without physician supervision "so long as they recognize their limitations and accept responsibility for what they do" (Ferber, 1985). Referring physicians often ask them to evaluate patients and identify problems, which is not the same as establishing a medical diagnosis (Ferber, 1985). Most physical therapists work in hospitals, however, they are now branching out to home health care and other community-based programs.

### Social Workers

Social worker assistance is provided to older persons through the county Department of Welfare or Department of Social Services. Federal funding for such services comes from Title XX of the Social Security Act and from state and local funds (Barrow, 1989). In many communities, only low-income elderly are eligible for these social services.

Medicare pays for medical social services if an older person qualifies for such help, regardless of income. A social worker may intervene if, for example, an isolated older person needs contact with others, or if a family problem needs attention. For example, a case worker may need to determine whether an older persons is being abused or neglected by those assuming responsibility for his or her care (Barrow, 1989).

Geriatric social workers, who are specialty trained in geriatric care, usually provide social services in geriatric outpatient clinics of teaching hospitals. Shortly after admission of the older patient, families are visited by the geriatric social worker, who assists in planning and arranging the services and support the older patient needs. This may include family education, discharge planning, referral services, and case management.

### Other Professional Services

There are many other professional services that are consumed by the elderly that are outside of the circle of the acute care setting or medical clinics. In specific, they

would include the older person's family practitioner or primary care physician. Generally, they may include, but are not exclusive to, services from dentists, ophthalmologists, podiatrists, psychologists, dietitians, recreational and speech therapists, and occupational therapists.

**Mental Health Services**

Medicare provides limited funds for outpatient mental health treatment despite a high proportion of mental illness (i.e., depression) among the age 65 years and over age group. The services of social workers and psychologists are typically not covered at all for mental health treatment, and Medicare allows no more than 190 days of care in a psychiatric hospital in a lifetime (Barrow, 1989).

The mental health provisions of Medicare seem to be guided by the culture and social norms of society, where more value is placed on physical health than on mental health. The mental care provisions of Medicare are vastly more limited than the physical health provisions. Barrow argues that even national health insurance proposals limit outpatient visits to a physician or psychiatrist for mental health care to 20 visits per year. Callahan (1987) believes that we must shift our emphasis of geriatric care:

We need to start from the bottom up, with a different vision of the future of aging, medicine, and health care than the one bequeathed us by the reform movement of the 1960s and 1970s...  
.....  
Major research priorities should be those chronic illnesses which so burden the later years and which

have accompanied the increase in longevity. They encompass, in addition to a number of physical problems (particularly multiple organic diseases), a variety of major mental disorders, including schizophrenia, affective disorders, various senile brain diseases, arteriosclerosis, and epilepsy...

.....  
 we should seek to advance research and health care that inceases not the length of life but the quality of life of the elderly.

(Callahan, 1987, pp. 203-204, 149, 223)

### Community Social Programs and Services

A substantial amount of the care provided to older persons is delivered outside of health care facilities. This is particularly true for long-term care, which usually does not require the intensity of care provided in these setting. Older persons are often helped through community support services or public or private agencies which offer specialized help. Among these services are nutrition programs, household management, transportation, housing, social and recreational activities, and home monitoring. Following is a description of some of the community-based social programs and services.

### Community Lifeline

Communities often provide a lifeline to older persons living alone. For example, programs like the Friendly Visitor and Latchkey Children's home monitoring program (San Diego, California), are volunteer community programs (Barrow, 1989). Many private agencies also provide access to care through continuous telephone monitoring systems or daily telephone calls. In continuous monitoring, the older person wears a



beeper-type of device, so that in the event of a fall or other emergency, the person can touch the device to summon help without having to be near a telephone (Reichel, 1989).

Reichel conjectures that in the near future, technology will allow patients to be monitored electronically by means of wristwatch types of computers that will transmit vital signs such as blood pressure, electrocardiogram (EEG), pulse, temperature, and other important data directly to a central location. In this way, a patient's health status can be monitored, and care can be provided on an as needed basis.

### Housing

Housing arrangements are a primary concern for older persons. Unlike in the past decades, older persons are no longer taken care of by their adult children, and particularly with the upsurge of working women who predominantly took care of older parents. However, for older persons living alone, there are several housing alternatives available for them.

- Shared housing involves either sharing the home with friends or relatives in similar circumstances, or renting rooms to other people. Such an arrangement can have both social and economic advantage for the older person.
- Elder Cottage Housing Opportunity (ECHO) homes are small, self-contained, portable units that can be placed in the back or side yard of a single-family

(American Association of Retired Persons, 1985). The idea began in Australia, where "granny flats" are manufactured to enable older parents to remain near their adult children and families. ECHO homes are designed and built especially for older or disabled persons, and usually are outside the zoning regulation restrictions on mobile or prefabricated homes (Reichel, 1989).

This general label also includes a number of other types of housing arrangements that provide varying degrees of care for older persons. The different categories are congregate housing, continuing care retirement communities, senior citizen housing, independent subsidized housing, and foster homes (Reichel, 1989; Watson, 1986).

### Corporate Response

Most national surveys conducted on corporate elder care benefit programs and services report that a mere fraction, 4 to 6 percent, of U. S. firms offer an elder care component in their benefit plans, although, in an ironic twist, many companies now offer benefits in child care assistance (AT & T, 1991; Buglass, 1989; Creedon, 1989; Horchler, 1989; Hyland, 1990; Locke, 1990; Stead, 1991). The few firms that have implemented various elder care designs are AT & T, Travelers Corporation, PepsiCo, Commonwealth Edison, IBM, Proctor & Gamble, Hallmark, Campbell Soup, American Express, and Johnson & Johnson. Their benefits range from the minimal of referral

services to an innovative approach of long-term care. Table 6 provides a synopsis of existing elder care benefit plans.

In terms of companies and early retirement, age-related stereotypes persist in most companies even though studies have shown that chronological age does not measure functional age, and despite government intervention in age discrimination in the workplace. American employers say that they value the dependability and loyalty of older workers, but most do little to recruit or retain them according to a 1989 study commissioned by the American Association of Retired Persons. Their study showed that only 3 in 10 companies surveyed said they had adopted a skills-training program for older workers.

Some of the larger American service-oriented companies have however, hired older persons. For example, Travelers Company, Grumman Aerospace Company, Walt Disney World Company, Andy Frain Communications, Kelly Services, Good People (employment agency for temporary workers), Builders Emporium, the national Wal-Mart chain, Hechinger home center, Days Inn hotel/motel chain, The Bay Bank, Great American First Savings Bank, Sun Bank, Joseph Horn Department Store, and Grand Union supermarket chain (Match, 1987).

Some organizations that are operated by the elderly offer employment counseling and training and referral services for older persons and companies with interest in hiring older workers. Some of them are Operation Able, Aging and the Workplace, and the American Association of Retired Persons.

Table 6

## CORPORATE ELDER CARE BENEFIT PROGRAMS AND SERVICES

Information and Education	<ul style="list-style-type: none"> <li>* Educational seminars</li> <li>* Caregiver fairs</li> <li>* Resource guide or resource libraries</li> <li>* Employee newsletter articles</li> </ul>
Low-Cost, High Impact Programs (Counseling and Referral)	<ul style="list-style-type: none"> <li>* On-site support groups</li> <li>* Company held workshops on elder care</li> <li>* Resource and referral services</li> <li>* Employee assistance programs</li> </ul>
Private and Public Programs	<ul style="list-style-type: none"> <li>* University grants for aging research</li> <li>* Endowments-funds established to build elder day care centers/nursing homes</li> <li>* Use of retired company employees as respite caretakers for elderly dependents of employees</li> <li>* On-site adult day care</li> </ul>
Financial Assistance and Benefits Program	<ul style="list-style-type: none"> <li>* Long term health insurance for employee's parents to cover custodial care and supplemental coverage</li> <li>* Flexible benefits: Dependent care</li> <li>* Reimbursement accounts and federal/state tax credits</li> <li>* Direct service subsidies</li> </ul>
Corporate Personnel Policies	<ul style="list-style-type: none"> <li>* Formal or informal flexible-time</li> <li>* Part-time work options</li> <li>* Job sharing</li> <li>* Family leave policies for emergency care of elderly parents, with phased in return to work options</li> <li>* Change in company credos that reflect company concern for elder care</li> </ul>

until recent years, the available options for geriatric programs and services in the United States were limited. Housing was basically restricted to private residences where obstacles may have existed for adequate medical, physical, and financial support, and the other primary housing option was institutionalized care, largely consisting of nursing homes. Today, with growth of the older population, increase in longevity, and the bimodal shifts in the health status of older persons, programs and services for older Americans are increasingly becoming diversified. As seen in Table 7, there are now a wide range of programs and services, ranging from the traditional medical programs and services to preventive health and psycho-social programs and services, diversified housing options, and terminal care services.

#### **Geriatric Programs and Services Outside The United States**

In recent years, many Americans have become increasingly concerned about the performance of health care in America. Soaring cost of health care, accompanied by a growing population of partially insured Americans, have caused many Americans to lose faith in the effectiveness of the current health care system, and this, as a result, has led to interest in the health care systems of other modernized countries. Americans have begun to look comparatively at the United States' health care programs and services in relationship to the Canadian and British systems.

Table 7

## UNITED STATES GERIATRIC PROGRAMS AND SERVICES

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Institutional Services	<ul style="list-style-type: none"> <li>* Hospital geriatric inpatient care</li> <li>* Geriatric mental health care</li> <li>* Social support for older clients</li> <li>* Subacute / stepdown, swing beds</li> <li>* Information and referral services</li> <li>* Legal, financial, and insurance counseling</li> <li>* Nursing homes</li> <li>* Hospice</li> </ul>
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Non-Institutional Services	<ul style="list-style-type: none"> <li>* Skilled nursing facility</li> <li>* Intermediate care facility</li> <li>* Comprehensive geriatric outpatient care</li> <li>* Home health care</li> <li>* Ambulatory care</li> <li>* Geriatric rehabilitation</li> <li>* Supplies of medical equipment</li> <li>* Pharmacy services</li> <li>* Mental health centers</li> <li>* Adult day care (medical model)</li> <li>* Specialized nutrition support</li> <li>* Respite care</li> </ul>
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Preventive Programs	<ul style="list-style-type: none"> <li>* Wellness education programs</li> <li>* Group sessions / self-care / caregiver education</li> <li>* Adult day care (social model)</li> <li>* Adult foster care</li> <li>* Community resource counseling</li> <li>* Geriatric assessment and screening</li> <li>* Case management</li> <li>* Homemaker / chore services</li> <li>* Board and care homes</li> <li>* Assisted living apartments</li> <li>* Transportation services</li> <li>* Congregate meals, Meals on Wheels</li> <li>* Psycho-social day programs</li> <li>* Emergency alarm response systems</li> <li>* Telephone reassurance services</li> </ul>
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Continuum of Care	<ul style="list-style-type: none"> <li>* Swing bed program</li> <li>* Social HMOs (insurance and service models)</li> <li>* Contract broker for case management</li> <li>* Retirement communities</li> <li>* Specialized congregate housing</li> <li>* Independent housing - subsidized / unsubsidized</li> <li>* Senior citizen housing</li> </ul>
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Terminal Care Services	<ul style="list-style-type: none"> <li>* Hospice care</li> <li>* Bereavement counseling</li> </ul>
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For instance, when the British National Health Service was founded in 1948, geriatric medicine was accorded full specialty status, largely based upon the successful experiences of the earlier pioneers (Coni, Davison, & Webster, 1986). In the British system, geriatric specialists are in charge of geriatric services that include acute hospital care, as well as an assortment of coordinated special care programs such as day hospitals, geriatric rehabilitation units, and home visits.

Coni, Davison, and Webster assert that the British system of "progressive geriatric care," allows older patients who require hospital admission (except those requiring intensive medical care) to be admitted to an acute-care geriatric assessment/evaluation unit. In this unit, each patient receives a comprehensive assessment of medical, functional, and psychosocial problems during an approximately 2-3 week length of stay. They add that care plans are established on the unit, usually by an interdisciplinary team, and the next level of care and placement is decided on: whether discharge to home, to a rehabilitation or chronic-care ward, or to a long-term care facility. The geriatric assessment units also accept patients in need of assessment from other institutions, often for periodic reassessment.

Contrary to a widely held view, the Canadian health care system is not a socialized medicine program since the government does not own or operate health care facilities nor

employ physicians (Hooyman & Kiyak, 1991). However, it does ensure universal accessibility, cost containment, and quality of care through a national health care system. On standard health indicators such as infant mortality, life expectancy, days of disability as well as per capita health care expenditures, the Canadian health care system fares better than the U. S. system of primarily private insurance (Hooyman & Kiyak, 1991).

Several other countries (including Sweden, Australia, Israel, and the Netherlands) have built or are building geriatric care systems similar to the British system. Specifically, most of them are equipped with centrally located geriatric assessment units as focal points for entry into the care system. Less intensive assessments are provided to elderly patients through other programs, such as consultation clinics, home visits, and day hospitals.

Based on the projected profile of the twenty-first century older Americans, that claims that the majority will be active and functionally independent well into their seventies and eighties even though some may have one or multiple chronic conditions, restructuring the U.S. geriatric health care system to accommodate less intensive geriatric services will be more appropriate, quality efficient, and cost effective. It may be reasonable to focus geriatric health care programs, services, and funding on the basic health and psychosocial needs of twenty-first century older Americans, similar to the



British and Canadian systems, even though some older persons may have chronic conditions of a more acute nature.

### **Factors That Affect The Health Of Contemporary Older Americans**

For a layman to observe a halting step or near-sighted squint and say the person is 'just getting old' reflects our culture's pessimistic attitude toward aging. When a health professional dismisses such impairments as 'merely aging,' he or she may be closing the door on counseling and treatment that could spare an elderly person years of discomfort, isolation, or disability.

(Berg and Cassells, 1990. Jacket cover)

As life expectancy increases, and more Americans grow old both actively and frail, issues on aging, quality of life, and health care costs and financing are becoming increasingly prominent. The issues are complex. They are often intertwined and interdependent. On the one hand, the advances in biomedical technology and engineering have been unprecedented in recent years, while on the other hand, medical technology has helped to escalate health care costs to almost unbearable proportions. Genetic engineering is enabling a decline in human suffering, while limited purposeful research on aging has hampered chronic disease prevention and control, thus, adding to the spiralling Medicare costs. Concomitantly, many older consumers do not heed the wisdom of health education and promotion, and there are antagonistic factors within the health system which inadvertently affect the health of contemporary older Americans. For example, human behavior and reaction to the

treatment environment are two factors among others that affect the health of contemporary older Americans.

### **Human Behavior**

Twaddle (1979) argues that illness behavior, health conformity, and social roles are bound within a normative framework in which cultural and group norms and past experiences frame health status. The process of health status designation can, therefore, be seen as consisting of interaction between an individual and his or her status definers, in which normative standards of adequacy are applied to the individual in the context of a specific situation. From this perspective, the medical care system is viewed as a system of control, and illness behavior and health conformity are influenced by the diverse cultures in a society.

Twaddle cites this example. In a primary gemeinschaft ( $G_1$ ) society, that is, a rural culture, the oldest member of the family usually decides the illness behavior, and this socialization dictates the health care received. In contrast, in a gesellschaft ( $G_2$ ) society, that is, an urban culture, social roles are more often segmented, unstructured, and fast moving, and therefore, there is a tendency for  $G_2$  persons to undergo marginality, and this lack of social identity could lead to a lack of norms and ultimately mental disorders.

Other researchers who have explored human behavior have also established a number of health predictive disabling

factors that are bound in culture, conformity, and a set of values and social roles. For example, they consider that some people, men particularly, may not seek health services unless they view themselves as vulnerable or susceptible to a disease which they perceive as having severe consequences. They must be convinced that the benefits to seeking health care outweigh the barriers of dependence for health improvement (Besdine & Williams, 1988; Bloom, 1963; Holtzman & Akiyama, 1985; Hooyman & Kiyak, 1991; Krout, 1983; Litman, 1979; Parsons, 1958, 1975; Wolinsky, 1978).

These researchers also counsel that for the older patient, differences in behavior and disease characteristics influence the presentation of illness, and thereby, contribute to delays in recognizing and treating disease. Besdine and Williams argue that these delays have deleterious effects on patient outcomes as well as on physician attitudes toward older persons. Besdine and Williams, Bloom, and Litman postulate that how older people respond to symptoms of disease is the final expression of a complex set of interactions among social, psychologic, ethnic, gender, and clinical differences. They stress that personal evaluation of health status, for example, over or under reporting symptoms, and persistent reactions to illness have important implications.

Bloom asserts that not just the patient is influenced by predictive factors, but the physician as well. For the physician, Bloom asserts that each is exposed, in his

professional education, to a set of values and behavioral norms that guide the doctor-patient relationship. He argues that this value system is augmented through the professional groups which he or she joins after medical school, and is propagated through the colleagues he or she selects as "models." Parsons (1975) asserts that this exclusive physician social group is organized into an association which establishes formal rules and informal practices of behavior. He relates that the association disciplines its own members, maintains an ethical standard by its own means, and thus, preserves the independence of its members in the practice of the profession.

Parsons and Bloom extend their guided thesis to include societal behavior. They suggest that society classifies the physician as being characteristically unique, often approaching reverence, and capable of guiding the behavior of the doctor-patient relationship. Such behaviors force medicine into a social relations, which can elicit passivity in the illness behavior of older persons.

Bloom's explanation for the uniqueness of the doctor-patient relationship is that it is essentially a dyad, interacting according to forces that derive mainly from the adjustment of two separate personalities, and drawn together out of the compelling needs set off by illness and subsequent "cure." He says that the physician's psychosocial aspect is not left to chance but is fitted into a systematic approach to

the totality of a patients problem. For the patient, he or she must yield his or her own social behavior to the uncompromising scrutiny of scientific inquiry. Hence, the doctor-patient relationship is influenced by social roles, culture, values, and resultingly, human behavior which can profoundly impact health care and treatment, particularly for older persons.

Bloom describes three basic models of the doctor-patient relationship: (1) activity-passivity where the orientations is one in which the physician is active and the patient is passive, for example, in the case of severe injuries, blood loss, delirium, or coma; (2) guidance-cooperation where acute disorders are less severe and the patient is keenly aware of what is going on; and (3) mutual participation that is useful in the management of chronic illness in which the treatment program is carried out by the patient with only occasional consultation with a physician, for example, diabetes mellitus, high blood pressure, or arthritis. Social scientists confide that when other than the mutual participation model for chronic illnesses is used in the doctor and active older patient relationship, serious pitfalls can occur that result in pesimistic behavior.

### **Lifestyle**

Another factor to impact the health of older persons is health promotion to reduce the incidence of chronic conditions. Studies have found that 90 percent of fatal and

near-fatal episodes of strokes and heart attacks are believed to be preventable (Surgeon General's Workshop, 1988; U. S. Public Health Service, 1989). Both the Surgeon General's report and the United States Public Service report indicate that heart disease, for example, has been linked to daily stress, sedentary living, weight gain, smoking, and high cholesterol diets. They also indicate that all of these risk factors can be reduced, even later in life, through changes in health habits. For example, by controlling blood pressure and weight, stopping cigarette smoking, reducing cholesterol levels, and engaging in regular exercise.

### **Psychosocial Factors**

Most health related psychosocial research on older persons has concentrated on morbidity and mortality as the outcomes of interest, with little attention being given to the non-frail older persons. Research, although limited, has found that psychosocial factors may have direct physiologic effects. For example, research on cardiovascular disease, while by no means consistent, implies such a direct pathway, as do some animal experiments on neural, hormonal, and immunologic processes (Rowe & Kahn, 1987).

Rowe and Kahn argue that to the extent that older people are placed in situations where they lack control over their lives, and to the extent that the forms of support available to them are not control-enhancing, they would anticipate physiologic changes in their system, with consequent increases

in morbidity and passivity. This suggests, from the positive implications of their theory, that increased predictability, control, and support that enhances both, will be reflected in increased proactive behavior and resistance to disease.

### **Drug Usage/Abuse**

The Office of Technology Assessment (Technology and Aging in America, 1985) considers that although pharmaceuticals are usually effective in improving the condition or comfort of older persons, drug usage and abuse can pose a major health problem for them. They suggest that problems could be due to adverse drug reactions or interactions, noncompliance, and lack of reliable information about the drug metabolism and distribution within the body.

The Office of Technology Assessment estimates that the cost of adverse drug reactions alone, among older persons, totals at least \$3 billion annually, and that persons 70 to 90 years of age have three to six times as many adverse reactions to drugs as do those under age 50. Hence, it appears that older persons who are the most likely age group to use and rely on prescription and over-the-counter drugs, are also the most likely to suffer from their usage.

Older persons are often victims of "legal" drug abuse. Prescription and over-the-counter drugs are offered in U. S. society as a solution to a host of problems. Table 8 displays many of the factors that increase the risk of undesirable drug effects.

Table 8

## RISK FACTORS THAT INCREASE UNDESIRABLE DRUG EFFECTS

- 
- \* Physician with limited knowledge of pharmacogeriatrics.
  - \* Multiple drugs.
  - \* History of adverse drug reactions.
  - \* Concurrent diseases (renal / severe liver insufficiency).
  - \* Impairments: mental, visual, auditory, locomotive.
  - \* Late senescence: very limited homeostasis.
  - \* Self-medication.
  - \* Multiple physicians.
  - \* Multiple pharmacies.
  - \* Small body size.
  - \* Living alone.
  - \* Lack of community support services.
  - \* Socioeconomic problems, resulting in inadequate follow-up.
- 

Source: J. A. Jernigan. Update on Drugs and the Elderly.  
American Family Physician. April 1984.



## **Multiple Pathology**

Besdine and Williams (1989) state that multiple pathology is especially dangerous to an older patient in two ways. First, multiple diseases are likely to interact with one another to produce a cascading degenerative effect, that is, disease-disease interaction. And second, multiple pathology can occur when proper evaluation or treatment for an identified problem has an adverse effect on one or several other undiscovered disorders, that is, disease-treatment interactions. Some of the more common coexisting conditions which Berg lists are osteoarthritis, depression, gait disorder, sleep disturbance, and adverse drug reactions.

## **Atypical Presentation**

Symptoms of illness can occur in an older person that may be far remote from the main disease manifestation or specific or classic illness (Besdine & Williams, 1989). Besdine and Williams relate that the most common appearance of one or more non-specific problems in older persons is usually functional loss. For example, difficulties with delirium and urinary incontinence may be a function of heart failure without presenting the major signs of heart disease.

## **Medicare**

Many health care experts argue that Medicare's rising costs is not due to what would appear to be the growth of the older population, or to their increased utilization of

services (Estes, 1983; Gibson, Waldo, and Levit, 1983; Lee and Benjamin, 1989). These experts argue that most of the Medicare dollars are spent in hospital settings, and the rapid inflation is purported to be due to high technology and the specialized skills required to operate the high technology equipment. Hence, Medicare is popularly viewed as contributing to the spiraling health care expenditures, most of which are primarily hospital costs.

Goldberg (1991) Waldo and Lazenby (1985) contend that health care payment mechanisms are based primarily on incurred costs, and these mechanisms offer little incentive for providers to reduce their use of costly medical technologies or outpatient hospital-based services. Barrow (1989) argues that escalating hospital costs alone have diminished the intended purpose of Medicare to protect older persons from the financial strain of needed medical care. While it is acknowledged that the Medicare physician fee schedule, effective January 1, 1992, is a herculean effort on the part of the Health Care Financing Administration to control costs, it is clear that several problems with the Medicare system and its pay schedule will still remain. For example, the problem of controlling health care services from an audit position.

Critics of the Medicare system maintain that the primary beneficiaries of Medicare have been hospitals, physicians, insurance companies, and the medical supply and equipment firms, not older persons with chronic care needs (Estes, 1983;

Harvard Medicare Project, 1986; Minkler and Estes, 1984). Another inequity critics have acknowledged finding in the Medicare payment system is the unfairness of allowing physicians to accept or reject "assignment."

There is obviously agreement on the need for cost containment within the Medicare system. What is less clear is how to reduce cost while ensuring quality care for older Americans. One method used by the federal government has been to pass some of the spiralling costs on to the older consumers of care through increased co-payments and deductibles. However, these mechanisms disproportionately burden many of the disabled, and limit health care for the poor. Because co-payments are linked to service utilization, they are inherently unpredictable, which undermines the principle of insurance that Medicare was designed to promote (Harvard Medicare Project, 1986).

It appears, that Medicare and Medicaid can reduce some of the differential effects of income for older persons, but because some health expenses must still be paid out-of-pocket, the poorest elderly remain the least likely to obtain health services, and the most likely to be vulnerable to the diseases that increase with age.

#### **Diagnostic Related Groupings (DRGs)**

A disadvantage of the DRG system is its failure to take account of the severity of the older patient's illness within a given diagnostic category. Hooyman and Kiyak (1991) provide

this example: among two older persons hospitalized for hernia operations, one may take longer to recover than the other because of poorer health status at admission. Such individual differences in pre-hospital health status are not considered by the DRG system. Hooyman and Kiyak and many others are finding that, as a result, many older patients are released from the hospital sicker, and hence, in need of higher levels of post-hospital care, which has a negative effect on both the health of older persons and their costs for care.

### **High-Technology**

Some social and health professionals have questioned the prudence of using high technology on the more feeble older persons without some system of control. They are considering the overall high costs and waste which results from overuse. For example, Phipps (1989) argues that many older patients lie in hospitals across the country in comatose conditions while attached to high technology equipment that keeps them alive, when for many of them, diagnoses have often been reliably made that their loss of consciousness is permanent.

Patients and persons close to the patients do not always realize that they have the right to accept or reject any treatment or prescription that their physician gives them. These issues are often complex because it involves the right to die issue. That is, at what point should the decision not to prolong life be made, who should make the decision, and does an individual have the right to decide when to die?

Barrow (1989) states some interesting right-to-die questions:

(1) What is the difference between killing and allowing a person to die? (2) What is the difference between stopping treatment and not beginning it? (3) Are there reasonable and unreasonable treatments?

Effective December 1, 1991, a new federal law began to require all hospitals to ask adult patients if they have signed living wills or durable powers of attorney for health care, and to provide the forms and information if they have not done so. The law is partially a reaction to the legal case of Nancy Cruzan, LESTER L. CRUZAN, ET UX., PETITIONERS v. DIRECTOR, MISSOURI DEPARTMENT OF HEALTH, ET AL., 110 S. Ct. 2841 (MO 1990), a case in which her parents and co-guardians sought a court order directing a Missouri state hospital to withdraw her gastrostomy feeding and hydration tube after it became apparent that she had virtually no chance of recovering her cognitive facilities after a persistent vegetative state resulting from a 1983 automobile accident. In this case, the Court held (5 to 4) that the U. S. Constitution permits a State to require a heightened standard of clear and convincing evidence of a patient's desire to have artificial hydration and nutrition withdrawn. The majority opinion also recognized that patients have a right to refuse life-sustaining treatment, conceding that "for purposes of this case, we assume that the United States Constitution would grant a

competent person a constitutionally protected right to refuse lifesaving hydration and nutrition."

The power of attorney documents, called advanced directives, give individuals the right to determine their own health care, including the right to choose or to refuse treatment. The power of attorney of health care (PAHC) also lets a person transfer these rights to someone else. Both must be honored by health care providers and institutions.

The publicly funded systems, such as those in Great Britain and Canada, attempt to limit acquisition of high technology through controls over the levels of funding for hospital services and limitations on technology adoption in ambulatory settings (Ruble, 1989). The United States has practically no powers of control over high technology usage. Table 9 exhibits comparative use of selected medical technologies in Canada, Germany, and the United States. Canada and Germany were selected for comparison because their overall health care resources are similar to resources in the United States, although the resources are deployed somewhat differently. While viewing Table 9, be cognizant that although the use of medical technologies are not separately identified for older persons, they are the highest consumers of health care, and therefore, are most likely the highest consumers of medical technologies.

Table 9

COMPARATIVE USAGE OF MEDICAL TECHNOLOGIES  
CANADA, WEST GERMANY, UNITED STATES

Medical Technologies	Canada (1989)			Germany (1987)			United States (1987)		
	# Units	Persons per Unit (1000)	Units per Million Persons	# Units	Persons per Unit (1000)	Units per Million Persons	# Units	Persons per Unit (1000)	Units per Million Persons
Open-heart Surgery	32	813	1.23	45	1,355	0.74	793	307	3.26
Cardiac Catherization	39	667	1.5	161	379	2.64	1,234	198	5.06
Organ Transplantation	28	929	1.08	28	2,178	0.46	319	764	1.31
Radiation Therapy	14	1,857	0.54	191	319	3.13	967	252	3.97
Extra-corporeal Shock Wave Lithotrispy	4	6,500	0.16	21	2,904	0.34	228	1,069	0.94
Magnetic Resonance Imaging	12	2,167	0.46	57	1,070	0.94	900	271	3.69

Source: D. A. Rublee. Medical Technology in Canada, Germany, and the United States. Health Affairs. 1989. vol. 8, no. 3, p. 180.

## Iatrogenesis

Older persons, as might be expected, are far more vulnerable to iatrogenic complications, that is, the creation of additional health problems or complications resulting from treatment by a physician or surgeon, or vulnerability to the elements in the treatment facility environment. Reichel (1965) found in a study of 500 patients, aged 65 years and older, that an incidence of 237 complications occurred during hospitalization. He summarized his findings with a warning:

The very decision to hospitalize the elderly patient is a critical one. When the elderly patient requires admission to a hospital, his physician should constantly weigh potential risk against possible benefit in planning the patient's care. Greater attention to preventive measures is essential if complications and adverse reactions are to be avoided....Reactions and untoward effects, once they have occurred, can be arrested or reduced in severity if the offending drug, procedure, or noxious situation is discontinued promptly.

(Reichel, 1965, p. 977)

The concept of the hospital as a dangerous place for older persons has been fueled by studies specific to iatrogenic complications in hospitalized patients. Studies in the 1960s found that hazards such as drug reactions, transfusion reactions, complications of procedures, and nosocomial infections occurred in 20 percent of all hospital admissions (Gillick, 1982). By the 1980s, the occurrence of iatrogenic complications had risen to 36 percent of all hospital admissions (Steel, et al, 1981).



## other Factors

Other factors influencing health care for older Americans are time, and money (Coe, 1967; Ford, 1962; Libow, 1977; Capital Outlook, 1991-1992). First, diagnosis and treatment of older patients require twice the time as compared to younger patients, and since a physician's earning power is directly related to the number of patients seen, older patient's often get less than sufficient time with the doctor. Second, Medicare, the major health care financing for the elderly, has been laden with reimbursement inequities, excessive paperwork, and problems with financing. Although the 1992 Medicare fee schedule attempts to protect beneficiaries by limiting physician fees above what Medicare allows, any discrepancies in the fee schedule could lead to increases in beneficiaries' out-of-pocket costs, as well as a disincentive for doctors to treat older patients. These factors could lead to even greater concerns about health care access for older Americans.

Robinson (1989a) argues that today, many angiograms are performed prior to, or despite, successful medical therapy for identifying specific obstructive lesions for which survival can be improved by surgery. Cusack (1989) suggests that this and other possible diagnostic and drug therapy abuses have led many geriatric professionals and researchers to question the use of surgical management of some chronic diseases in older persons, since the risk and benefits have not been

specifically studied or clearly identified. They argue that despite recent interest and study in clinical pharmacology and technology in aging, there is still a paucity of information.

A 14 November 1991 article in the New England Journal of Medicine reported that people who suffer cardiac arrest and are not revived by rescue workers are virtually doomed to die, and it is a waste of time and money to take them to a hospital. The researchers reported that even if they are revived in the emergency room, the odds that they will ever leave the hospital alive are virtually nil. As a result, they said, it would be better to declare these patients dead at the scene rather than subject them and their families to dehumanizing, costly, and ultimately, futile hospital treatment. The New England Journal of Medicine, challenging the standard practices at most U. S. hospitals, reported that two-thirds of the 350,000 cardiac arrests in America take place away from the hospital; and even though the majority cannot be revived at the scene, they are rushed to hospitals as rescue workers continue resuscitation efforts.

### **Summary**

This literature review revealed several recurrent themes. First, the rapidly increasing age 65 and over population is living longer and leading more active lives even though many of them still experience one or multiple chronic conditions. This phenomenon is transforming America from a youth oriented

society to a society that is having difficulties keeping pace with the demographic realities. As a greater proportion of our population grows old, ageism, negative images, and misconceptions about aging persist in mainstream society, government, and among health professionals, despite an increasing understanding of the aging process. These aberrations could present obstacles for a better quality of life for many older Americans.

Second, clinical researchers and behavioral and social scientists have developed a number of theories to advance the meaning and understanding of aging. Yet, many of the geriatric programs and services are often not linked to the health and social realities of older Americans. This omission has affected a population of people who experience at least 20 percent functional disorders, 15 percent cognitive disorders (depression in communities), and frequently undiagnosed social isolation that impacts both functional and cognitive disorders. Aside from the more recent genetic discoveries, nutritional research, and drug innovation, Birren and Zarit (1985) suggest that the major exceptions to medical progress have been those diseases which have been correlated with older people, i.e., cancer, cardiovascular diseases, arthritis, etc.

Third, most of the prevailing geriatric health care programs and services, including governmental financing for Medicare, are based on acute conditions, not the chronic conditions which most older persons experience. In addition,

the majority of the specialty-trained geriatricians practice in mostly outpatient clinics of acute care settings, and the majority of active older persons only visit acute care settings for acute critical conditions. This literature review has implied that medical education may be one cause of the proliferation of the acute care paradigm, because, as recent as 1991, geriatrics as a separate course is taught in only 13 of the 126 American accredited medical schools.

Wolfensberger (1972) has defined the health care system of today as one which views the consumer of human services as a "sick" "patient," who, after "diagnosis," is given "treatment" for his "disease" in a "clinic" or "hospital" by "doctors" who hold primary administrative and human management responsibility, assisted by a hierarchy of "paramedical" personnel, and "therapists," all this hopefully leading to a "cure." He asserts that this objective of "cure" must not be understated, because it is central to a part of the problem in medicine for older Americans.

Shore (1979) agrees that medicine has long been keeping people alive longer, but cure, not long-term care, is medicine's "stock in trade." His argument is that when we begin to accept this fact, we can begin to establish the conflict of the medical paradigm of acute care on the one hand and "chronicity" on the other. He writes that the present system of financing long-term care for the ill-aged is inappropriately based on the traditional medical paradigm,

because it is borrowed from the acute, short-term care hospital, and this model is based on cure and expediency of care.

Clearly, health care for older Americans is in need of transformation, even though physiological, sociological, behavioral, and psychological research on aging, to a limited extent, has been ongoing. However, limited change can be expected in the quality of life for older persons, so long as our medical education and practices continue to be more concerned with the treatment of acute conditions than with chronic conditions, and ageism that type cast all older persons as useless persist in our society (Birenbaum, Aronson, & Seiffer, 1979; Callahan, 1987; Glazier, 1973).

Should traditionalism in the medical profession be sacrificed in the interest of the health security for an ever increasing older American population? Michael H. Beaubrun's statement from the book The Making Of A Physician communicates the response succinctly:

It is most important that not only the psychiatrist but every doctor be taught the social anthropological background of the patients with whom he deals and how these patients perceive him; for a doctor from the middle class or social elite is usually surprisingly unaware of his patient's beliefs and value systems.  
(Fredericks & Mundy, 1976, pp. 148-149)

The aging explosion described in this chapter can be substantiated in most of today's literature on aging. However, contemporary literature is at odds over whether living longer equates necessarily to living a successful or

reasonable quality of life. The World Health Organization in 1947 described health as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (Greene, 1971). Since that time, several health and social scientists have presented definitions and interpretations of the meaning of health that have supported, augmented, modified, and contradicted that definition.

Greene (1971) argues that it is presumptuous for anyone to propose a specific definition of health for universal acceptance. He considers it more relevant to identify clear and functional concepts of health. For example, he suggests that we should consider the economic status, social conformity, emotional satisfaction, and physical fitness in defining the status of a person's health. He also includes political considerations in that formula because he reasons that many important health problems require group or community action for their most effective solution.

Bloom (1963), Parsons (1975), and Twaddle (1979) takes Greene's argument one step further by proposing that health may be regarded differently by different people, depending upon culture, values, social roles, and human behavior. The World Health Organization has recently built a classification system around the transition from physical impairments on the organ level, to losses of personal function such as hygiene and feeding, to limitations in more social settings --

conditions of impairment, disability, and handicap (Berg & Cassells, 1990).

Based on this literature review, the answer to the questions regarding whether or not the prevailing geriatric programs and services meet the needs of contemporary older Americans aged 65 years and over, and whether these programs and services meet the needs of the twenty-first century older Americans whose population is predicted to be at least double that of today by the year 2030, and whose health status, on average, is expected to shift further from the frail to the functionally active yet still encumbered with one or multiple chronic diseases, the answer would appear to be "It depends." On the one hand, most older persons have acute problems that need to be treated and the health care system can accommodate them. On the other hand, a growing number of older persons have varying degrees of chronic conditions and psychosocial problems which the health care system seems ill-equipped to accommodate.

**CHAPTER III**  
**RESEARCH METHODOLOGY**

If science is the constellation of facts, theories, and methods collected in current texts, then scientists are the men [and women] who, successfully or not, have striven to contribute one or another element to that particular constellation. Scientific development becomes the piecemeal process by which these items have been added, singly and in combination, to the ever growing stockpile that constitutes scientific technique and knowledge.

Kuhn, 1970, pp. 1-2)

This chapter describes the research methodology that was used to study contemporary aging, and the practices, programs, and services that influence the geriatric health and social processes and behaviors. It represents more than a comprehensive and detailed presentation of the specific methodological research approach. This careful and thorough presentation includes the philosophical foundation that undergirds the dissertation research framework; it highlights the distinctions of the research methodology, triangulation and its conceptual components; and, it presents the systematic research approach, sample selection and size, and data collection and analyses.

This chapter is being presented in detail because the changing patterns of older Americans pose a considerable



challenge to researchers, health and social service providers, and public policymakers. This increasingly social phenomenon, without historical precedent, has serious implications for twenty-first century older Americans. It demands the thoughtful conceptualization of disciplines, methods, and applications to arrive at meaning, understanding and "truth" that this dissertation endeavors to provide.

### **Philosophical Foundation For Research Methodology**

The philosophical foundation is presented in this chapter in order to dissuade potential debate often generated when combining disciplines previously thought to be antagonistic (i.e., medical sociology and geriatric medicine), and when combining research methodologies often assumed incompatible (i.e., strategies of qualitative and quantitative research).

One of the tasks of this study was to research the patterned regularities of the health and social realities of contemporary older Americans, and the variables as intervening social processes of these realities. The social processes were studied by way of a theoretical construct that involved a specific methodological procedure for generating theory. Within the context of medical sociology and geriatric medicine, each of the older subjects and variables were studied for phenomena related to culture, behavior, values, beliefs, practices, programs, services, and priorities. The basic analytic focus was in coming to know, in order to

strengthen the knowledge and understanding of aging, and the myriad dimensions of contemporary aging and geriatric practices, programs, and services.

This research methodology was intended to elucidate the significance for a new arrangement of values and priorities at the geriatric end of the aging spectrum. The methodological procedure selected for the research study was triangulation. While it was recognized that the triangulation methodology is regarded by some social scientists as a departure from the qualitative research tradition in that it sometimes allows the inclusion of what may be considered quantitative techniques, the rationale for using triangulation was to obtain multiple meaning, understanding, and verification for an area of study, aging and the aging process, that can be complex, and permeated with diverse and competing interests.

The following brief overview of medical sociology and geriatric medicine, and triangulation and the conceptual components of the triangulation selected for this study, highlights the philosophical basis for this research.

### **Medical Sociology and Geriatric Medicine**

Medical sociology and geriatric medicine are each recognized as relatively young fields in health care. It was not until 1955 that an informal committee on medical sociology was started within the American Sociological Association (Schwartz, 1987), and certification of added qualifications in geriatric medicine began only in 1988 under the auspices of

the American boards of family practice and internal medicine (American Geriatric Society, 1991). At the heart of the concept of integrating medical sociology and geriatric medicine in a research study is the opportunity it provides for making the medical world aware of the utility of sociological principles and concepts concerning social processes and social behavior. Following are separate descriptions of medical sociology and geriatric medicine.

### **Medical Sociology**

The sociology of medicine, as proposed by Strauss in 1955, is concerned with organizational structure, role relationships, value systems, and rituals and functions of medicine as a system of behavior. Strauss's goal for medical sociology was to provide an opportunity to apply, refine, and test sociological principles and theories in the field of medicine (Strauss, 1957). Strauss expected this to be achieved by teaching medical students, identifying differences in the definitions and reactions to health and illness, and by identifying social epidemiologies.

The doctor-patient relationship was one of the earliest issues of interest to medical sociologists. During the early years, Samuel Bloom's book The Doctor and His Patient (1963) was often required reading in courses in medical sociology, and Parson's notion of the sick role as a system of behavior was a key concept to be discussed (Parsons, 1979). The perspectives brought forth were that of an asymmetrical

relationship in which the doctor was completely dominant. However, now that the culture of medicine is becoming less mysterious to consumers and the popularity of "getting a second opinion" exists, that is, getting an opinion of a second physician, medical sociology, by necessity, has also changed.

Medical sociology now spans the gap between sociology and the modernized distinctions of medicine. Kendall and Merton (1958), Suchman (1967), Kendall and Reader (1972), Fox (1987), and Wolinsky (1987), are several social scientists who have elaborated upon Strauss's original distinction of medical sociology. Their accounts of medical sociology include:

- (1) Sociology of Medicine which may be described as questions which belong within the traditions of the sociology of the profession and organizational sociology. Relevant topics include recruitment into and training for the profession, the organization of the profession, and finally, its relations to external pressures and agencies; And,
- (2) Sociology in Medicine which may be described as the application of sociological concepts, knowledge, and techniques in efforts to clarify medical and social-psychological problems in which the medical profession and its allied workers are interested. In this instance, sociological knowledge

supplements medical knowledge, in order to find solutions to what are essentially medical problems.

Based on these descriptions of medical sociology, there can be little question as to the correlation between the cause and effect of the social and health-illness-medicine factors. However, several misconceptions cloud the basis of medical sociology. To dispell some of the confusion surrounding this discipline, medical sociology does not advocate socialized medicine and socialism; it was not designed to make medical students more "humane;" it will not subvert and hinder medical students by an overloading of vocational subjects with the idea that it will advance their business sense; and finally, medical sociology is not limited to concerns of the impoverished, illiterate, and uneducated, in short, the disadvantaged (Freeman, Levine, & Reeder, 1972).

Medical sociology was expected to help formulate new and clearer concepts for this study that are in and of the sociology of medicine, particularly in view of the grounded theories developed about the new breed of older Americans and their health care providers. Additionally, the inclusion of medical sociology was expected to shed new light on the needs of the twenty-first century older Americans who are projected to live longer and healthier lives even though they may be encumbered with one or more chronic diseases. By including medical sociology, this study will also provide health care providers with new insights on the sociology in medicine.

## Geriatric Medicine

As a result of the changing scope of medicine and the increasingly social nature of its delivery, the modernized distinctions of medicine, particularly geriatric medicine, reaches beyond the traditional physiological boundaries. Geriatrics medicine is concerned with the aging process, and the diagnostic, therapeutic, preventive, and rehabilitative aspect of illness in older persons (American Geriatrics Society, 1991). Kane, Ouslander, and Abrass (1989) state that the care given to older patients differs from that given to younger patients for a number of reasons. One reason can be traced to the changes that occur in the process of aging. Another reason has to do with the plethora of diseases and disruptions that accompany seniority. And other reasons result from the way older people are treated in society.

Although much attention has become focused on the variations in aging, with great interest directed toward those older persons described as aging successfully, geriatric medicine has not fully shifted from the paradigm of traditional medicine, either in practice or in setting. Strikingly, geriatrics as a specialty, is still dominantly exclusive to university teaching hospital (acute care) settings (Berg & Cassells, 1990). Unfortunately, or in the context of exposure to hospital environment infections as cited in the literature review, or perhaps fortunately, most geriatric patients see family practitioners and primary care

physicians who are outside of the hospital setting. This implies that the most appropriate geriatric care and treatment is not available to the majority of older Americans.

Additionally, according to the American Medical Association (AMA), geriatrics, as a separate study in the curriculum of American accredited medical schools, is still not required by the accrediting Liaison Council on Medical Education. A 1991 survey conducted by the American Medical Association for the Liaison Council on Medical Education (1991) revealed that geriatrics as a separate course is independently required by only 13 of the 126 American accredited medical schools, and is included as a part of other courses in 109 of them. Their survey included responses from 124 of the 126 accredited medical schools. It appears that although medical advances have extended life, the quality of life older persons experience in America may still be in jeopardy. This rather paradoxical circumstance presents not only an increased burden of illness for older persons, their families, and significant others, but also presents a problem for the health care financing system in specific, and society in general.

Many recent research studies and conferences have examined the state of health and social practices, programs, and services for older Americans. For example, Beck, 1989; Berg & Cassells, 1990; Besdine, 1988; Birren & Schaie, 1985; Bloom, 1972; Butler, 1978a, 1978b; Caranasos, Webster, &

Goodenough, 1990; Coe et al., 1982; Estes & Binney, 1989; Fries, 1980, 1981; Havlik, et al., 1987; Hendricks & Hendricks, 1977; Hooyman & Kiyak, 1991; Jaco, 1979; Kane, Ouslander, and Abrass, 1989; Katz, Branch, Branson, et al., 1983; Neugarten, 1983; Palmore, Busse, et al., 1985; Parsons, 1975; Rowe & Kahn, 1987; and Twaddle, 1979. However, those studies and conferences have said more about the sociology of the ailing older persons than about the sociology of the new breed of active and functionally independent older persons, the concern of this research study.

In summary, beyond the apparent difference of medical sociology and geriatric medicine, there are complementary theories and collective beliefs. For example, both medical sociology and geriatric medicine acknowledge that the genetic endowment, internal machinery of cells, body's system of chemical messengers, immune system, and extrinsic factors (physical activity, social isolation, smoking, lifestyle, etc), all affect the aging process. Each of these disciplines endorse that the conditions of impairment, disability, and handicap can lead to limitations in social roles and social interactive behavior. It is these commonalities which inspired the hope that the idiosyncrasies of each of the disciplines of medical sociology and geriatric medicine could be transcended to improve upon the overall quality of life for older Americans.



Research, evaluation, and development in recent years have emerged to include revolutionary technological and even controversial epistemological considerations. Boudon (1988), Kuhn (1970), Popper (1964), Reichardt and Cook (1979), Smith (1983), and a growing number of other social and natural scientists have given a special twist to the world view of scientific research and practices. They have refuted the notion that science must be limited to a rigid set of rules that are based upon structured paradigmatic concepts and "truth." It was their vision that influenced the methodological framework to research the following questions:

- (1) Do prevailing geriatric practices, programs, and services meet the needs of contemporary older Americans, aged 65 years and over?
- (2) And, will these practices, programs, and services meet the health and social needs of twenty-first century older Americans without definitive intervention, when the older population is projected to be at least double that of today by the year 2030, and their health status, on average, is expected to shift further from frail to active although they may still be encumbered by one or multiple chronic diseases?

## Methodological Theoretical Framework

Characteristically, conventional approaches have followed the experimental and psychometric traditions dominant in educational research. Their aim (unfulfilled) of achieving fully "objective methods" has led to studies that are artificial and restricted in scope. We argue that such evaluations are inadequate for elucidating the complex problem areas they confront and, as a result, provide little effective input to the decision-making process.

(Parlett and Hamilton, 1976, p. 141)

Traditionally, the theoretical framework for most scientific investigations in the field of health care has been deductive and hypothesis-testing, that is, quantitative research. Quantitative research relies on empirically-based verification as the means of arriving at "truth," and the belief that knowledge is cumulative. Quantitative research includes the techniques of randomized experiments, quasi-experiments, paper and pencil "objective" tests, multivariate statistical analyses, sample surveys, and the like. Campbell and Stanley (1963) describe quantitative research as "the only way of establishing a cumulative tradition in which improvements can be introduced without the danger of a faddish discard of old wisdom in favor of inferior novelties."

Riecken et al (1974) relate that "experiments not only lead to clearer causal inferences, but the very process of experimental design helps to clarify the nature of the social problem being studied." Parlett and Hamilton (1976), on the other hand, clearly disagree. According to Parlett and Hamilton, Mullen and Reynolds (1978), and a few other social

scientists, the deductive and hypothesis-testing research approaches often have not been effective in interpreting social realities and psychosocial practices for several reasons. First, quantitative researchers often have not made a significant commitment to understanding the perspective of the people being studied or to leaving open a redefinition of the "problem" (Mullen & Reynolds, 1978). Mullen and Reynolds argue that many studies of compliance with medical regimens illustrate this difficulty. For example, they claim that the term "problem" connotes an explanation for, as well as a description of, the ill person's behavior; and this may have short-circuited the research efforts which, as they are depicted in the literature, show remarkably little attention to the patient's point of view.

Second, quantitative research studies generally have been static when social realities were involved. Metaphorically, Mullen and Reynolds describe quantitative research as taking snapshots to describe conditions or situations at one or several points in time, instead of taking moving pictures of social processes as they vary under different circumstances and interact with other variables. Viewing this within a social science context, the status of attitudes or behaviors is infinitely easier to measure than the dimensions of attitudinal and behavioral interaction. In the context of this research study, the dynamics of physiological, psychological, and sociological change, or the stages of

redesigning a lifestyle, program, or service are often inconstant, and this makes the paradigm-transcending laws inherent in the canons of quantitative research nearly impossible to obey.

Third, variables such as the recent demographic characteristics of our aging society have enjoyed considerable popularity among researchers, but these descriptors have provided only a starting point for intervention. A deeper understanding, particularly of the dimensions of contemporary aging and the factors that affect the aging process, is needed to give greater leverage for change.

Fourth, quantitative research is concerned with testing hypotheses, that is, testing one or more conditional propositions made as a plausible explanation for a situation or circumstance in light of established facts. Only seldomly have hypothesis-seeking methods been applied. Mullen and Reynolds (1978) argue that the concept and theory focus of health education research frequently has been dictated by logico-deductive theoretical concerns (hypothesis-testing) rather than empirical questions (hypothesis-seeking). To elaborate on this point, it is like a geriatric health care program designed by national policymakers without the participation of the geriatric client group to be served. Mullen and Reynolds claim that if the theoretical starting point, literature review, of a quantitative (deductive) study turns out not to be relevant or have the best fit, no further

literature search is routinely conducted, and without empirically generated concepts, it is difficult to estimate the relevance of new theory or concepts.

Finally, sociological concepts have often been oversimplified when operationalized for quantitative measurement. For example, when health care results are measured solely in Western terms for a health care study of another cultural group, the conceptual relevance is often missed. Bronfenbrenner (1977) has suggested that in studying human development, researchers should use naturalistic setting designs as well as experimental methods.

In addition to the quantitative research that is used in the milieu of "coming to know" in health education and research, there is the lesser utilized qualitative research paradigm. Qualitative research is concerned with understanding human beings in all of their complexities, and the nature of their transactions with themselves and with their surroundings (Miles and Huberman, 1984). It is central to the study of basic social processes and social interactive behaviors, and these dynamics are core variables in the field of health care. Qualitative research is a source of tangible descriptions of actions, perspectives, attitudes, behaviors, cultures, values, social structures, practices, policies, programs, services, and the like, that are generally expressed in words.

There are numerous qualitative research methods. To name a few, there is the ethnographic interview (Spradley, 1979); participant observation techniques (Taylor and Bogden, 1984); analytic induction (Robinson, 1951); the constant comparison method (Glaser, 1965); the case cluster method (McClintuck, 1979); content analysis (Krippendorff, 1980); and, historical research (Hackett, 1982). Analyses usually consist of a concurrent flow of data gathering activities, data reduction, data display, and conclusion drawing (Miles & Huberman, 1984).

Qualitative data analysis is a continuous, iterative enterprise. Hence, the qualitative research operation is often no more complex, conceptually speaking, than the research modes used in quantitative research. That is, each is preoccupied with data reduction (computing means, standard deviations, indexes, etc.), with display (correlation tables, regression printouts, etc.), and with conclusion drawing (verification of significance levels, experimental and control differences, etc.) that is carried out through well-defined canons (Miles & Huberman, 1984). Yet, considerable disagreement exists over the appropriateness of one paradigm over another for conducting research.

Some scientists argue that, not unlike quantitative research, qualitative research also has considerable limitations. For example, they argue that qualitative data are too subject to human judgement, much too reliant on feelings, beliefs, and introspection, and seldom are

verifiable or have analytic focus. They argue that such subjectivity denigrates the research results, and forms no cumulative history. Reichardt and Cook (1979) view the qualitative versus quantitative research debate with obvious disdain. They argue that treating the method-types as incompatible encourages the use of one method or the other, when it may be a combination of the two that is best suited to discovering or improving a theory in the face of atypical data, or to reconcile discrepant findings.

The qualitative versus quantitative debate seems to evolve from each discipline's philosophic tradition that is grounded in certain epistemological beliefs about the origin of knowledge, and therefore, each respective side believing in the utility and appropriateness of their own method of analysis. Although each side is, in fact, compelling, and each dimension has its own relation to reality, Boudon (1988) sums up this research debate succinctly when he argues that: "There are objects of investigation on which there can be, even ideally, no unique objective "truth."

Boudon contends that some of the widespread conviction among researchers that one paradigm is better than several may stem from the fact that: (1) it is not always easy to see which paradigm is more appropriate in a given research situation, and (2) paradigms tend to be seen as "truths" or universal facts.

In the context of health care and interactive social processes, Bigus, Hadden, and Glaser (1982) summarize one disservice the allegiance to qualitative versus quantitative paradigm research may have wrought:

...social life is not random, ...it exists as sets of behavioral uniformities which occur and recur over time... [however], it has too seldom been studied in a methodical manner in and of itself. This is not so much because of a lack of concern about social process as it is an absence of specific and systematic means of approaching its study.

(Bigus, Hadden, & Glaser, 1982, p. 251)

Having studied and practiced both the quantitative research paradigm (B. A. in Chemistry and research chemist for ten years) and the qualitative research paradigm (current PhD program minor in qualitative research and qualitative researcher in health care for more than five years), this researcher is respectful of each of the research paradigms and acknowledges that each has value in providing ways of looking at health and psychosocial circumstances in the milieu of coming to know. However, because the dimensions of aging are so closely intertwined with the social phenomena of culture, behavior, values, and beliefs, and these phenomena are linked to the naturalistic phenomena of physiological aging, a single focused methodology was deemed unlikely to establish conclusive evidence regarding the new arrangement of the health and social status of older Americans, or the prevailing geriatric practices, programs and services.



In an effort to avoid the constraints of either of the polar-opposite qualitative or quantitative paradigms in this integrated health and social science research study; the problematic issues of not devoting adequate attention to the patient's point of view; or even misdiagnosing the conceptual relevance of the social processes, the selected research methodology utilized for this study was triangulation. As observed by Campbell (1975), different styles of research need not be antagonistic, and indeed may overlap in mutually complementary ways. It was this concept that affirmed the appropriateness of the triangulation research strategy for this multi-disciplined study.

### **Triangulation**

Denzin (1978) defines triangulation as a strategy that allows the use of multiple data sources, methods, investigators, and theories to generate and verify findings of a research investigation. Triangulation, as developed by Denzin, utilizes a variety of perspectives that can, at least in principle, be used to systematically strengthen and clarify the social processes in an integrated natural and social science research study. This method especially lends itself to this study because it works as an alternative to the traditional applied distinctions in research, quantitative and qualitative, insofar as it can contribute to theoretical

development, transcend systematically derived knowledge, and cut across traditional sociological boundaries.

Triangulation as a research strategy is a fairly new concept (Miles & Huberman, 1984; Webb, et al., 1965). It not only allows for a researcher to both generate and verify findings through the use of multiple approaches, it also provides for the conceptualization and corroboration of the facts (Denzin, 1978). Denzin describes this genre of integrating multiple strategies to generate and verify data and facts as "between" and "within" methodology.

Denzin's definition of "between" combinations is the use of differing epistemological traditions to generate and verify data or facts. For example, the constant comparative method may be used to gain meaning and understanding of a social process or phenomenon, in combination with a survey method that utilizes statistical analyses to generate and verify an explanation of that social process or phenomenon.

Denzin defines "within" methodology as a strategy that utilizes different indices to generate and verify an explanation of a social process or phenomenon. For example, in the survey approach, different statistical indices may be used such as mean deviation, comparative analysis, regression analysis, chi-square, t-tests, etc.

Mathison (1988) argues that good research practices obligates a researcher to use triangulation. Kuhn (1970) illuminates the significance of this point when he criticizes

the ill-effects of some of the strict epistemological traditions in the quest for knowledge, meaning, and "truth."

For example, Kuhn relates:

An investigator who hoped to learn something about what scientists took the atomic theory to be, asked a distinguished physicist and an eminent chemist whether a single atom of helium was or was not a molecule. Both answered without hesitation, but their answers were not the same. For the chemist, the atom of helium was a molecule because it behaved like one with respect to the kinetic theory of gases. For the physicist, however, the helium atom was not a molecule because it displayed no molecular spectrum. Presumably, both men were talking of the same particle, but they were viewing it through their own research training and practice."

(Kuhn, 1970, p. 50)

Although there are noteworthy strengths in the utility of being able to verify and predict qualitative findings in the triangulation research method, there are also weaknesses in the method. Miles and Huberman (1984) question the potential of researcher bias. They are concerned that any potentiality of cognitive conflict of interest may bring into question the validity of the findings. Additionally, as illustrated by Kuhn, different methods encompass different meanings, and thereby may generate different explanations of the same social process or phenomenon. Mathison (1988) paradoxically argues that different methods can also lead to different domains of "coming to know."

Despite these implied weaknesses in triangulation, it allows for some verification and predictability of findings in qualitative research. The absence of this schematic character

in qualitative research has long been challenged and debated among qualitative and quantitative researchers.

Use of the triangulation research strategy for this research investigation was guided by a commitment to filter through the uncharacteristic meanings and explanations of the myriad perspectives of a new generation of older Americans; sundry geriatricians who treat them (family-practitioners, primary care physicians, and certified and fellowship trained geriatricians); and diverse nurses and social workers who provide care for them. The knowledge gleaned from the triangulation methodology was expected to help clarify the needs and concerns of these dissimilar yet socially interactive groups.

Triangulation was also expected to dispell some of the qualitative-quantitative research controversies that often encumber scientific advancement, and help build on the health and psychosocial metamorphosis that will be necessary to meet the needs of twenty-first century older Americans.

Following is a general description of each of the triangulation stragegies (Denzin, 1978; Mathison, 1988; Miller, 1989), although the methodological triangulation strategy was selected as the research strategy for this dissertation study.

- (1) Data triangulation - Use of multiple data sources, the obvious example being the inclusion of more than one individual as a source of data. Denzin expands

the notion of data triangulation to include time and space based on the assumption that understanding a social phenomenon requires its examination under a variety of conditions.

- (2) Investigator triangulation - Use of multiple investigators or evaluators. This strategy, according to Mathison, perhaps more than other types of triangulation, is usually built into the research process because most studies simply require more than one individual to acquire the necessary data collection.
- (3) Theory triangulation - Use of different theoretical perspectives on the data set. Although this triangulation strategy is presented by Denzin, he questions the plausibility of such a notion, and considers it to be problematic at best, and likely impossible in reality.
- (4) Methodological triangulation - Use of multiple methods to investigate a problem, program, or phenomena in the examination of a social phenomenon. "The rationale for this strategy is that the flaws of one method are often the strengths of another; and by combining methods, observers can achieve the best of each while overcoming their unique deficiencies" (Denzin, 1978, p. 302). Denzin relies most heavily on the work of Webb et al. (1966) to

suggest that the use of appropriate multiple methods will result in more valid research findings.

Methodological triangulation seemed to be the solution to investigating the complexities of medical sociology as related to geriatric medicine. The methodological triangulation strategy utilized in this study included: Grounded Theory, the primary method; Focus Groups, the secondary method; and, Matrix Display, a method used to enhance the validity of the research findings, aid in the elimination of bias, and to help resolve any competing theories. The contextual framework for each of these three research methods follows.

### **Grounded Theory**

Grounded theory was selected as the primary research method because it links the universally accepted comparative analysis research method with a coding paradigm to ensure conceptual development and verification for patterns of social behavior and practices, that is, social process. Comparative analysis is an inductive strategy used to study multiple comparison groups in social processes in order to develop concepts, identify their properties, explore their relationships to one another, and integrate them into a coherent theory (Bigus, Hadden, & Glaser, 1982; Glaser & Strauss, 1967; Mullen & Reynolds, 1978; Taylor & Bogdon, 1984). The coding paradigm is used to systematically categorize and help provide empirical verification for the characteristic patterns within the group social processes.

Glaser and Strauss (1967), who revolutionized qualitative research in the early 1960s with grounded theory, attempted to close the gap between theory development and operational research. They believed that blending qualitative and quantitative methodological approaches would add distinction to sociologically derived natural science theory. The grounded theory method then, uses comparison as an analytical tool to generate concepts and hypotheses, and to interrelate them through core variables which are both parsimonious and broad in scope (Mullen & Reynolds, 1978).

The beginning stage of grounded theory investigation consists of discovering categories into which data can be coded. See Table 10 for an example of grounded theory categories. Indicators (incidents and definitions in the data) are inspected with the question, "Of what concept is this an indicator?" (Mullen & Reynolds, 1978). In the early part of the study, the researcher attempts to discover many categories of comparisons with new indicators to uncover their characteristics and relationships. Mullen and Reynolds and Glaser and Strauss assert that these early codes may be discarded if they lack foundation in the data, and more may be added as the data gathering progresses. In grounded theory, data gathering, analysis, and conceptual integration go on simultaneously, although this mix at any one time differs over the course of a study.

Table 10

GROUNDED THEORY CATEGORIES  
FOR OLDER AMERICANS' PERSPECTIVES

1. Personal Profile Issues
  - A. Sex / Age / Marital Status
  - B. Origin of Birth
  - C. Educational Status
  - D. Financial Status
  - E. Religious Affiliation
  - F. Living Arrangements
  - G. Employment Experience
  
2. Health Profile Issues
  - A. Activities of Daily Living
  - B. Health Self-Assessment
  - C. Personal Health Habits
  - D. Chronic Conditions / Health Problems
  - E. Doctor - Patient Relationship
  - F. Health Insurance Coverage
  - G. Health Care Expenditures
  - H. Use of Community Social Services
  
3. Social Profile Issues
  - A. Family / Significant Other Relationship
  - B. Social Support
  - C. Friendships
  - D. Social Participation
  
4. Personal Perceptions Issues
  - A. Personal Goals
  - B. Coping with Aging
  - C. Feelings about Aging
  - D. Feelings about Society and Aging
  - E. Feelings about own Quality of Life
  
5. Longevity Perspective Issues
  - A. Living Longer
  - B. Better Health / Chronic Conditions
  - C. Euthanasia / Catastrophic Illnesses
  - D. Burden



The grounded theory method stresses discovery and theory development, rather than rely on a priori theoretical frameworks as in exact natural sciences (Glaser and Strauss, 1967). Glaser and Strauss stress that these two aspects of the method require the application and cognizance of certain distinctive strategies:

- (1) Collect data from the research study informants, study the data, and proceed to construct theory by coding, memoing, and categorizing the data. Data collection, coding, memoing, and categorizing of data (data analysis) proceed simultaneously. The researcher checks and rechecks the data by discovering and analyzing social and psychosocial processes, and often expand upon emerging ideas by collecting further data. Charmaz (1983) argues that this type of systematic reflection serves to strengthen both the quality of the data and the ideas developed from it because it guides emerging themes to new theoretical insights.
- (2) The analytic processes in grounded theory prompt discovery and theory development rather than verification of pre-existing theories (Charmaz, 1983). Charmaz argues that researchers who pour their data into someone else's theoretical framework or substantive analysis add little innovation, and may also perpetuate ideas that could be further

refined, transcended, or discarded. The strategy of theoretical sampling in grounded theory refines, elaborates, and exhausts conceptual categories.

- (3) Although grounded theorists do not follow the traditional quantitative canons of verification, they do, however, check their developing ideas with further specific observations, make systematic comparisons between observations, and often, take their research beyond the confines of one topic, setting, and issue (Strauss, 1987).
- (4) Systematic application of grounded theory analytic methods progressively leads to more abstract analytic levels (Glaser and Strauss, 1967). Grounded theorists do not only study process, but also assume that making theoretical sense of social reality is itself a process. As such, theoretical analyses may be transcended by further work in order to bring more and different questions to the data (Glaser, 1978). In keeping with the grounded theory foundations in pragmatism, that is, the empirical and rational framework, grounded theorists strive to develop fresh theoretical interpretations of the data rather than final or complete interpretations (Taylor and Bogdan, 1984).

Grounded theory has no hard and fixed rules for converting data into theory (Strauss, 1987), but rather

constitutes rules under which some operations must be carried out and others which should remain flexible. For example, fixed coding of collected data must be done, and generally done often and continually. See Table 11 for an example of coding. Also, analytic memos must be done early and continually in conjunction with the coding to maintain constant comparisons. See Table 12 for an example of memoing. At the same time, there are many other of the operational aids which must remain adaptable to the research context. Glaser and Strauss (1967) argue that this control-variable procedure, rules combined with flexibility, achieves meaningful and verifiable grounded theory about the social world or phenomena under study.

Social scientists who do not endorse convergence of the qualitative and quantitative methods contend that the grounded theory method relies too heavily on terms commonly applied in the quantitative research procedure. They refer to terms such as coding, comparison groups, and theoretical sampling, which they consider to elicit images of logical deductive quantitative procedures (Charmaz, 1983). These social scientists also argue that grounded theorists fail to distinguish clearly between concepts and explanatory propositions. For example, they feel there is fuzziness about the meaning of the word "theory." With all due respect to these social scientists, their proposed limitations of grounded theory seem not to imply that the method does not

Table 11

GROUNDED THEORY CODED EXCERPT  
FROM UNSTRUCTURED GERIATRICIAN INTERVIEW

Subject 051  
22 August 1991  
Page 12

- Int: Do you consider yourself a geriatrician because you are professionally trained in the field, or because you have a large population of patients age 65 years and older, or both?
- 051: Well, I became certified in geriatric medicine in 1988, and my practice is about 60 percent older people. But I'm not fellowship trained if that's what you mean by professionally trained. I would say that the fellowship trained docs are professionally trained ... specialists, even though there is no geriatric specialty ... yet. But, you know, the fellowship trained docs aren't seeing the majority of the older people in the country. There aren't that many of them, ... and the few docs that have the special training are all in hospitals ... outpatient clinics ... getting the big bucks. They aren't out there like me and the other docs who see most of the older people. We have to try to see as many young patients as we can to make up for Medicare's low payments and back payments, so that we keep our office open. And you know, those new [federal] regulations they're proposing for doctors are just going to make matters worse. I may have to end up decreasing my older patient load just to make ends meet.
- 2b  
3c  
5c  
7d  
4a  
12c

Table 12

GROUNDING THEORY MEMOING  
FROM GERONTOLOGICAL NURSE UNSTRUCTURED INTERVIEW

<p>Subject: 09 (Nurse) Date: 18 July 1991</p> <p><i>Feels little value is placed on her advanced skills and knowledge as a gerontological nurse. Would like fee-for-service and direct patient contact. Fearful that doctors will perceive her as a threat to them. Patients may not be able to pay. Medicare not structured for nurses. Would like team approach, but outside hospital setting. Not looking to get rich, just respected. Shows pride in her career but low self-esteem on the job. Now in hospital setting and spends 2 days at Senior Center.</i></p>								
1a 7/8, 12:30	3a	4a	5a	7a	8a	10d	11a	12a
b 7/23, 2:15	b	b	6d	b	b	e	b	b
2a 7/98	c	c		c	c		c	c
b				d 5, 8-10			c	

elicit reliable meanings of the social world. On the contrary, it reflects that while this contemporary method may not be as well structured as one would like, the ambiguities have the potential to become diminished through comparative analyses. Furthermore, in this integrated natural and social science study, the patterns of meaning, understanding, and explanation were expected to emerge through the convergence of semi-structured in-depth interviewing and analyses, and consensus building among participants in both the natural and social science settings. The consensus building was derived through the comprehensive modeling of a self-contained focus group.

### **Focus Group Research**

Focus Group research was selected as the secondary method for this methodological triangulation research strategy. This kind of research is frequently used in the education milieu to study dissimilar variables, because it presents a natural environment where participants are influencing and influenced by others--just as they are in real life. The researcher derives understanding based on the discussion as opposed to testing or confirming a preconceived hypothesis or theory.

Focus groups can be described as a method used to generally or comprehensively evaluate facts, figures, or opinions, to be used to approximate or indicate what a broader analysis might reveal (Green & Tull, 1978). They produce qualitative data that provide insights into the attitudes, perspectives, and opinions of participants (Krueger, 1988).

These results are solicited through open-ended questions where respondents are able to choose the manner in which they respond, and also from observations of those respondents in a group discussion. One of the strengths of focus group research is that it may be adapted to provide the most desirable level of focus and structure to a given circumstance.

As a technique, focus groups emphasize keeping the participants discussing a subject until their points of agreement and disagreement become apparent. This often means that participants become consciously aware of their own perspectives when confronted with an active disagreement or an explicit attempt to reach consensus. Differences and consensus can be resolved when participants build comprehensive models to explain their various experiences with a topic (Steward & Shamdasani, 1990). Such collective attempts to create or expand a perspective are inherently limited to groups. Every one in the group may not build a comprehensive model, and still fewer may succeed. However, this can be limited when more of the participants possess knowledge of the topic.

The focus group research strategy generally involves 8 to 12 individuals who discuss a particular topic under the direction of a moderator, who provides the agenda and structure, promotes interaction, and assures that the discussion remains on the topic of interest (Stewart & Shamdasani, 1990). The moderator may be more or less directive with respect to the discussion, and often is quite

non-directive, thus, letting the discussion flow naturally as long as it remains on the topic of interest. In this semi-structured environment, the researcher serves several functions: moderator, listener, observer, and eventually, analyzer, using an inductive process of analysis. A typical focus group session will last from one and a half to two and a half hours (Greenbaum, 1988).

The key distinguishing feature of a self-contained focus group is that the results of the research can stand on their own. This feature does not deny that the data could also be used as part of a larger project; rather, it asserts that no such further data collection is necessary before reporting the results from the focus group research itself (Morgan, 1988). Morgan asserts that two common ways in which self-contained focus groups combine with other sources of data are when they contribute to the ongoing research program of a single author, or when they become part of a larger subfield. As such, they can be part of a larger effort to "triangulate" different forms of data collection on the same topic (Denzin, 1978; Fielding & Fielding, 1986), and their independent, self-contained nature is a critical feature of their ability to contribute to triangulation (Krueger, 1988).

Krueger relates that the single most important way to triangulate focus groups with individual interviews is to conduct the groups as a follow-up to the interviews (i.e., as a follow-up to the grounded theory method). This would allow



the researcher to explore issues that came up only during the analysis of the interviews. It would also be a way to clarify areas in which there seemed to be a number of different viewpoints in the individual responses. As you may recall, the goal of triangulation is to strengthen the total research project by confirming findings and to obtain both breadth and depth information, regardless of which method is the primary means of data collection.

If focus groups can be used for both exploration and confirmation, the question might arise as to how focus groups differ from other tools of science, and what purposes they serve that are not served by other methods, for example, the grounded theory method. The answer lies in the nature or character of the data generated by the focus group interviews. Krippendorff (1980) distinguishes between two types of data: emic and etic. Emic data arise in a natural or indigenous form, and are only minimally imposed by the researcher or the research setting. Etic data, on the other hand, represent the researcher's imposed view of the situation. Focus groups, analogous to grounded theory, provide data that are closer to the emic side of the continuum, whereby they allow individuals to respond in their own words. Focus groups differ from grounded theory and quantitative methods in that they allow use of their own categorizations and perceived associations.

As with most research methods, there are certain limitations of focus group research that are wise to consider:

(1) The potential of undesirable effects of respondent interactions, that is, responses from members of the group are not independent of one another, and hence, may impose views or restrict the generalizability of results; and (2) the potential of biased results obtained with a very dominant or opinionated member, leading to the hesitancy of more reserved members to speak out (Stewart & Shamdasani, 1990). Yet, the main advantage focus groups offer is the opportunity to observe a large amount of interaction on a topic in a limited period of time (Morgan, 1988). This can be achieved by the moderator maintaining control over the focus group sessions. Paradoxically, this same control is also the single largest disadvantage of focus groups: it creates a fundamentally unnatural social settings (Morgan, 1988).

Put simply, focus groups are useful when investigating what participants think, but they excel at uncovering why participants think as they do. Because both methods, focus groups and grounded theory are concerned with the rules, values, and priorities given to social conditions and individual action, both had a relevant place in the context of this research. Each method served to complement and compensate for the limitations of the other, and each facilitated an interpretative framework for the experiences, and the factors that guide the experiences of older Americans, geriatricians, gerontological nurses, and geriatric social workers.

## Matrix Display

Matrix display was the final method used in this research triangulation strategy. It is a problem solving activity that involves displaying an organized assembly of information to highlight conclusions to be drawn and actions to be taken (Miles and Huberman, 1984).

A matrix is constructed by dividing two separate dimensions into two or more mutually exclusive categories (Patton, 1987). The crossing of the two dimensions (each consisting of at least two categories) creates a table made up of separate cells, each cell being the product of the intersection of the category from each dimension (Patton, 1987). Each cell contains information about the relationship between the two dimensions. The creative challenge of matrix display is to come up with a meaningful label and accompanying statement of relevance for each cell, and make sense of each cell while relating each one to the others.

Finally, there are always choices about the level and type of data to be entered into a matrix display. For example, Miles and Huberman (1984) relate that one can include direct quotes, extracts from written-up field notes, summaries, paraphrases, or abstracts; researcher explanations; ratings or summarized judgements; or combinations of the above. Matrix display in this study was expected to assist in illustrating, summarizing, and simplifying the complexities of some of the findings, inconsistencies, and contradictions from the

grounded theory and focus group research. Matrix display was consistent with and complementary to these methods in that it has no fixed canons to restrict theory development. See Table 13 for an example of matrix display.

In summary, this dissertation research methodology was guided by the factors in the study: (1) combining two disciplines often thought to be antagonistic, medical sociology and geriatric medicine; and (2) conducting research in combined disciplines that traditionally are dictated by separate and rigid paradigms often assumed incompatible. The concern was to study the most appropriate disciplines and make the most efficient use of research methods that would address the health and psychosocial issues of contemporary and twenty-first century older Americans.

To understand how the theoretical research framework for this study was approached, tested, and analyzed, the research analytic techniques will be discussed next.

Table 13

MATRIX DISPLAY

INDICES OF HEALTH AND SOCIAL SERVICES  
IN GROUNDED THEORY AND FOCUS GROUP RESEARCH

Factors	Adapted to Increased Life Expectancy / Lifespan	Satisfactory Doctor / Patient Relationship	Impacted by Social Processes	Impacted by Health Processes	Chronic Conditions are Defeating
Geriatric Health Services	No	N/A	Yes	Yes	Yes/No
Geriatric Social Services	No	N/A	Yes	Yes	Yes/No
Government Programs	No	N/A	Yes	Yes	Yes
Older Americans	Yes/No	No	Yes	Yes	Yes/No
Geriatricians Board Certified / Fellowship Trained	Yes	Yes/No	Yes	Yes	No
Gerontological Nurses	Yes	Yes*	Yes	Yes	No
Geriatric Social Workers	Yes	Yes*	Yes	Yes	No
Family Practitioners /Family Care Physicians	No	No	No	Yes	Yes

Matrix Display Key:

N/A

Not Applicable

Yes/No

Mixed Response

\*

Nurse or Social Worker, as appropriate

## Research Approach

At the heart of science is the process of conceptualization, which seeks to represent the real world in a simple enough way to allow understanding. Scientific constructs are abstracted forms and represent only limited aspects of real-world objects and behaviors. If scientific constructs mirrored the full complexity of the real world, one could no more understand science than one can directly understand the real world. (Calder, 1978, p. 552)

The scientific construct for this study comprised utilization of the methodological triangulation strategy that was described earlier in this chapter. The research approach involved the three separate research methods to systematically assess if the geriatric health and social practices, programs, and services in the United States have an effect on the successful aging of older Americans. Successful aging, as defined for this dissertation study, was based upon two criteria: (1) the attainment of 65 years and over, with a status of good health as characterized by a person's ability to be functionally independent and active; and (2) satisfaction with the social processes that influence and guide the lives of older Americans.

Additionally, based on the current geriatric practices, issues, and trends, as determined by the comprehensive literature review for this study, the research design was also directed towards strategic planning for re-structuring the community geriatric programs and services to meet the needs of twenty-first century older Americans.

In this study of contemporary older Americans and the processes that influence their lives, functionality, and health and social processes were given prominence. These variables were primary because despite the progress that has been made in extending life and functional independence among older Americans in recent years, health and social interactive practices, programs, and services have remained, on average, unchanged. This is based on the literature review that was discussed earlier in Chapter II, which indicated that while older Americans may have been living longer, they have also been adversely affected by aging, society, and the health and social interactive processes in subtle and complex ways. Hence, the basic health and social processes of contemporary older Americans were examined using a number of structured and semi-structured health and psychosocial parameters.

As substantive contents on aging and the aging process were identified from the literature review, a conceptual framework was developed to organize the research approach, sample selection and size, and data collection and analysis process. A conceptual framework explains the main factors or variables to be studied, and the presumed relationships among them (Miles and Huberman, 1984). The conceptual framework for this research study involved use of the multiple research techniques: grounded theory; focus group research; and matrix display, which were discussed in detail earlier in this chapter. Multiple research techniques were deemed necessary

to elucidate the effects of variables which may influence successful aging in twenty-first century America. The techniques necessitated utilization of cluster sampling and a structured and semi-structured approach to the research investigation.

The cluster sampling strategy was used in the grounded theory method to select the separate groups of older persons, geriatricians, gerontological nurses, and geriatric social workers since individuals in each of these groups are commonly clustered. A cluster sample is one in which a simple random or stratified random sample is selected of all primary sample units, each containing more than one sample element (Green and Tull, 1978). This control over similarities (age group, activity, and functionality) and differences (group distinction and demographic characteristics) that is possible in cluster sampling was vital for generating an understanding of and an explanation for the complex phenomenon and processes that currently exist in geriatrics.

In-depth, semi-structured, and structured interviewing techniques were used to "get the facts" on successful aging in this study. In-depth interviewing means, typically, repeated face-to-face encounters between the researcher and informants. It is directed toward understanding the informants perspectives on their lives, experiences, or situations as expressed in their own words (Taylor & Bogden, 1984). The in-depth interview is modeled after a conversation between



equals, rather than a formal question-and-answer exchange.

Semi-structured interviews are flexible nondirective, unstructured, nonstandardized, and open-ended. In stark contrast, structured interviews involve getting people relaxed enough to answer a pre-defined series of questions completely. In short, people are asked identically worded questions to assure comparable findings.

The semi-structured interview was the focal investigative technique utilized in the primary method in this study, grounded theory. It involved intensive systematic interviewing of subjects until the evolution of variables had been saturated, and an explanation and understanding of the health and social processes of contemporary older Americans were achieved. Glaser and Strauss refer to this semi-structured approach to research as enabling the researcher to:

...understand and analyze ongoing situational realities, to produce and predict change in them, and to predict and control consequences both for the object of change and for other parts of the total situation that will be affected. As changes occur, his [her] theory must allow him [her] to be flexible in revising his [her] tactics of application and in revising the theory itself if necessary.

(Glaser and Strauss, 1967, p. 245)

The semi-structured investigative technique in the grounded theory method was utilized to capture detailed information about the health and social processes of older Americans: the prevalence of chronic conditions; the

sufficiency of health and social practices, programs, and services; the adaptation to increased life expectancy and lifespans; and the impact of social role, self-concept, attitude, and behavior, as well as service providers' and societal behaviors, attitudes, myths, misconceptions, and expectations. Within these referents, participants were asked to identify specific experiences from which chosen or imposed characteristics of events or experiences could be abstracted. The semi-structured research approach comprised the major source of information for this research study.

Structured sampling was utilized for the focus group research method. It encompassed selecting a representative sample of the grounded theory study population after the grounded theory research was completed. In this "depth" and structured research (Goldman & McDonald, 1987), it was possible for the health and social processes to be described more profoundly than is usually accessible at the level of an interpersonal interview relationship.

The focus group session was structured in that the researcher (moderator) presented in a contextual framework. For example, most direct questions were sequentially focused, verbal cues were used such as "think back in time," serendipitous questions were posed at the end of discussions, and a "focused" guide was handed out to participants to help them maintain direction and focus on the research being discussed. Additionally, time and seating arrangement

restrictions were placed on specific focus group research tasks and discussions during the session.

Yet, focus group research is commonly not all structured. The focus group session was also semi-structured because the discussions about the geriatric health and social processes, and strategic planning of the twenty-first century geriatric health and social systems were conducted in a relaxed, non-directed manner. This semi-structured approach was used in order to encourage spontaneity, and to disclose attitudes, opinions, and behaviors that might otherwise be guarded.

Matrix display, an independent problem-solving research activity that was utilized in this study, was conducted by creating a matrix chart of assembled information from the grounded theory and focus group research.

The Chicago area was chosen as the site of this research study. Although the persons selected to participate in the study may not be representative of all older persons and health and social service providers throughout the nation, the Chicago area does exhibit a large and widely varied segment of the older population and health and social service providers. In terms of the older population, Illinois ranks number six among states in the nation with the largest geographic population. The state of Illinois has over one million persons age 65 years and over (U. S. Bureau of the Census, 1991).

The metropolitan Chicago area represents 16 percent of the United States population, approximately 64 percent of the

total population of the state of Illinois, and about 58 percent of the age 65 and over population (State of Illinois, Bureau of the Budget, 1990). Almost three-fifths, or 59 percent of this population is female, and hence, the research study was designed to include at least three-fifths of the older active and functionally participatory female population.

In terms of health care providers who treat older persons, approximately 150 of the 4,000 certified and fellowship trained geriatricians in the United States practice geriatric medicine in the Chicago area. There are about 40 certified gerontological nurses in Chicago of the 1,236 in the United States, and about 46 of the 427 geriatric social workers. These totals were obtained from the national offices of the American Geriatrics Society, the American Nurses' Association, and the National Association of Social Workers, respectively.

The Chicago area was selected for other reasons as well. First, it is convenient to the researcher as a study site. Second, there is a large population of healthy, active, and functionally participatory older persons who reside in the Chicago area. Finally, and most importantly, Chicago is recognized as the "hub" of health care, with a majority of the health care providers, and national health care provider and affiliate associations and organizations based in the metropolitan city.

The recruiting process involved selecting volunteers from among the cluster groups of older persons, geriatricians, gerontological nurses, and geriatric social workers in the Chicago area that were appropriate to participate in the groups. For example, the four active and functionally participatory older Americans who were selected from among the grounded theory research participants to participate in the focus group research were: a retired teacher; a former chairman of the board of a fortune 500 company; a grade school level former housewife, who is a mother of 11 adult children and now a widow; and a college degreed housewife and mother of two adult children. Ethnically, they were Afro-American, Caucasian, Hispanic, and Jewish. The three women and one man ranged in age from 67 to 76 years. This grouping was considered to be the makeup of the twenty-first century older Americans, many of whom are expected to be, on average, active, functionally participatory, reasonably well-educated, and ethnically and socio-economically diverse.

Interestingly, although almost all of the older person participants (3 out of 4) became increasingly socially isolated from mainstream society beginning at around age 65 (they experienced decreasing personal or spousal work-related primary relationships), all are currently involved in extraneous activities that expand their social roles. These activities include participation in senior centers, advanced education courses, membership on hospital boards, director of

older-worker employment center, and volunteer work, some of which is gratis and some of which is financially remunerative. These experiences, combined with their gender, educational, religious, and socioeconomic diversity, rendered them appropriate to assist in the focus group strategic planning for twenty-first century health and social practices, programs, and services in the interest of successful aging for twenty-first century older Americans.

As the theoretical concepts became more clearly defined during the interviewing and in what was becoming a comprehensive literature review, the significant value of the face-to-face non-threatening interview became increasingly apparent to get at the complex health and social processes in this study - the defining experiences through which ways of living, patterns of relations, and conditions of practices direct and permeate the lives of contemporary older Americans. For example, the interviews presented an opportunity to differentiate the behaviors, attitudes, and practices of board certified geriatricians, fellowship trained geriatricians, and self-proclaimed geriatricians. The interviews also allowed for resolution of whether or not high-technology medicine, increases in longevity that accompany progressive chronic conditions, and social isolation that is conjectured to promote psychological symptoms of depression, dependency, anger, and anxiety influence contemporary older Americans' adaptation to later life. These and a myriad of other health

and social process considerations framed the impetus for a research schema - pilot study and instrument to guide the research.

### **Pilot Study**

A group of eight older persons, eleven geriatricians, and two gerontological nurses who met the requirements of the sample guidelines were included in a preliminary test of the dissertation study. These volunteers helped to establish the criteria upon which the larger study was based.

Since geriatrics is such a rapidly developing field that is also accompanied by sweeping changes in aging and the aging process, the subject responses were often free of what would otherwise be inherent biases. This purity in responses proved to be a salient benefit for the study. It also proved that a refined guide would be necessary to capture certain intrinsic commonalities about the subjects and the intervening health and social processes.

An important discovery in the pilot testing concerned the phraseology of questions and probes. It became clear in the interviews that the subject geriatricians, particularly those who had prior experiences with quantitative research protocols in the medical community, became uncomfortable when sociological principles and concepts were applied. For example, initial inquiries regarding the adequacy of medical care for older Americans either drew indignation from some of the geriatricians or it limited their response repertoire.

Through observation, this researcher took their response, or lack thereof, to indicate their belief that the researcher lacked an understanding of the requisite training and skills of a doctor in internal medicine. In subsequent responses, most of the self-proclaimed and even some of the certified and fellowship trained geriatricians expressed that the training and experience acquired in internal medicine was sufficient to treat and care for older persons. This perception appeared to be common among many of the geriatricians despite the opposing views or advocacy for reform from the American Medical Association and American Geriatric Society. These national medical organizations endorse that added qualifications in geriatrics are not only necessary but imperative to support the successful aging of older Americans.

Kane, Ouslander, and Abrass (1989), the authors of the geriatric medicine "bible" present these views:

The problems of the geriatric patient may present quite differently from young patients. Because of the increased prevalence of chronic disease, the presenting problem may not be as distinct as with a younger patient, who is typically well until the onset of a new symptom complex. With an elderly patient, the new problem is generally superimposed on a background of already existing signs and symptoms. The onset may be less clear, the manifestations less precise. In addition, we need to recall that many symptoms and signs are not produced by the disease itself, but by the body's response to that insult. One of the hallmarks of aging is the reduced response to stress, including the stress of disease. Thus, the symptom intensity may be dampened by the aged body's decreased responsiveness.

(Kane, Ouslander, and Abrass, 1989, p. 12)



This same health care question was phrased differently to the geriatricians in later interviews in the pilot study. For example, "what do you think about the prevailing health care services for older Americans." The geriatricians appeared less threatened by this question, responded in broad detail, and hence, substantial clarity was gained about the adequacy of prevailing medical and health care for older Americans.

Several points were gleaned from the pilot study. The older American subjects displayed patterns and described experiences which indicated that they did not fit many of the myths and misconceptions accepted by society and the health care providers. The geriatricians, particularly those in university teaching hospitals, did not fit the image of older Americans who alluded that geriatricians were just high-priced doctors who were only concerned about money. Finally, the importance of the gerontological nurses to the health and social processes of older Americans was highlighted only during the pilot study, and not in the literature review.

These and other findings in the exploratory study were used to formulate meaningful questions, identify relevant variables, and draw inferences as a basis for getting the facts on the successful aging of older Americans, who live in a time of accelerated population growth, increasing social epidemiologic variables, and high-technology medicine.

The pilot study also provided evidence of audiotape equipment fidelity that would be necessary to insure

acceptable voice quality during the grounded theory interviews, particularly the interviews conducted with people in the advanced age group. Audiotaped interviews and pursuant verbatim transcriptions from the pilot study provided an empirical base for the interview guides that would be used in the larger research study.

### **Interview Guides**

Profiting from the facts learned during the pilot testing, the inclusion of structured interview guides were manifest for each separate subject group in the grounded theory and focus group research. The interview guides were needed to provide a common set of participant responses.

The structured interview guides that were developed for each separate group in the grounded theory research included questions of demographic characteristics such as gender, ethnicity, education, and socioeconomic status, as well as health and social process variables. Although the questions and probes in the grounded theory research guides provided comparability within and between subject groups, certain questions were open-ended to elaborate the finer details of personal experience. See Appendix B, C, D, and E for an example of the grounded theory interview guides for the older persons, geriatricians, gerontological nurses, and geriatric social workers, respectively.

There was one standard interview guide developed for the focus group research. It was developed for the focus group

session to provide: geriatric background information; specific focus group objectives; assumptions about aging, the aging process, and older Americans; alternative geriatric practices, programs, and services; and, an agenda for strategic exchange and debate on geriatric quality of life needs assessment. The interview guide for the focus group included many facts and figures so that strategic decisions would be based on data and not just opinions. See Appendix F for an example of the focus group research interview guide that was used by all participants in the focus group session.

As implied in the strategic planning model found in figure 12, successful aging in the twenty-first century could, or should occur within a framework of aggregate structure variables, and confined to a non-institutional community climate. Kane, Ouslander, and Abrass describe it this way:

Most elderly persons have developed mechanisms to cope with multiple limitations. Most continue to function despite these forces. The physician's role is to enhance this coping ability by identifying and treating remediable problems and by facilitating changes in the environment to maximize function in the face of those problems that remain. (Kane, Ouslander, and Abrass, 1989, p. 11)

Metaphorically, for a geriatrician to ignore an environment that may present hazards and abuse for active, and functionally participatory older persons, or less than sufficient geriatric practices, programs, and services, is tantamount to prescribing drugs and then ignoring compliance with the treatment regimens.

Figure 12

STRATEGIC PLANNING MODEL  
GERIATRIC HEALTH AND SOCIAL SERVICE OPTIONS  
FOR TWENTY-FIRST CENTURY OLDER AMERICANS

(You may add to this list)

- |  |  |
|--|--|
| 1 * Marketing  | 27 * Regular social events   |
| 2 * Health care clinic   | 28 * Housing counseling  |
| 3 * Pharmacy service   | 29 * Telephone monitoring service  |
| 4 * Physician referral   | 30 * Language classes  |
| 5 * Health education   | 31 * Fitness classes   |
| 6 * Professional geriatric care training   | 32 * Spiritual counseling  |
| 7 * Medication monitoring  | 33 * Support group for chronic ailments and widowed                          |
| 8 * Medication counseling  | 34 * Recreational opportunities  |
| 9 * Health screening   | 35 * Leisure opportunities (trips)   |
| 10 * Database case management  | 36 * Chronic condition management  |
| 11 * Two-way communication with health professional                                | 37 * Prescription drugs computerized by Social Security number               |
| 12 * Home health care services   | 38 * Health status obtained by security access codes (patient, doctor, etc.) |
| 13 * Nutrition counseling  | 39 * Fine restaurant dining  |
| 14 * Legal counseling  | 40 * Student visitation program  |
| 15 * Health insurance counseling   | 41 * Nursing and rehabilitative service                                      |
| 16 * Family counseling   | 42 * Dental examination and prophylaxis                                      |
| 17 * Financial counseling / estate planning  | 43 * Ophthalmology service   |
| 18 * Retirement planning   | 44 * Laboratory tests and diagnostic X-ray examinations                      |
| 19 * Job placement   | 45 * Audiometric testing   |
| 20 * Transportation program  | 46 * Activities program  |
| 21 * Adult day care <i>These may be subsidized by family and corporations,</i>     |  |
| 22 * Child day care <i>and older persons could provide child day care services</i> |  |
| 23 * Meals   |  |
| 24 * Home delivered meals  |  |
| 25 * Home safety assessment  |  |
| 26 * Newsletter  |  |
-

With regard to subject confidentiality in the grounded theory and focus group research, protocol for confidentiality was followed throughout the research. In the grounded theory research, the transcriptions from the semi-structured interviews, field notes, and the accompanying interview guides were assigned subject identifier numbers which were removed when a dense theory emerged and when the interview protocols were no longer needed. As such, this study entailed negligible risk to the well-being of the participants, while hopefully, it will provide substantial benefits to the quality of life for twenty-first century older Americans. (See an example of the subject identifier form in Appendix G that was attached to each subject's interview questionnaire guide and audiotape transcriptions.) In the focus group research, the audiotaped transcriptions and researcher's notes from the session were filed without reference to subject identification. Subjects were also not assigned an identifier code on either the individual interview guide handouts (Figure 12), or the strategic planning modeling handout (Appendix G).

The interview guides, pilot study, and comprehensive literature review provided evidential rationale to conduct the research study and a conceptual scheme to investigate the many variables. However, choosing a good sample to study, or selecting the appropriate sample size to study, can often be difficult in social science research. A researcher must ensure that the phenomena under study are (a) independent of

one another; (b) represent the range of evolutionary complexity; and (c) represent the demographic characteristics of the social reality under study. Following is a discussion on the sample selection and size for this research study.

### **Sample Selection and Size**

Sampling generally involves the selection of a portion of a population as representative of that population (Green and Tull, 1978). However, sample selection for this study which utilized triangulation research was unique because it made use of multiple sample selections and sizes to satisfy the requirements for each of the grounded theory, focus group, and matrix display research methods.

Following is a discussion on the specific sample selection and size for the grounded theory and focus group methodologies used in this study. Parenthetically, matrix display is not included in this discussion since sample selection and size are not applicable to this methodological strategy.

### **Grounded Theory**

The sample selection and size for the grounded theory method was divided into four separate groups of subjects who were selected from among the cluster sample groups. These separate groups consisted of: Group I - Older Americans; Group II - Geriatricians; Group III - Gerontological Nurses; and Group IV - Geriatric Social Workers.

### Group I - Older Americans

Sixty-eight older Americans were selected from among the older American cluster groups. They were aged 65-82 years, considered themselves "healthy," and believed they were active and functionally independent. They also had diverse characteristics of gender, ethnicity, education, and socioeconomic status.

The volunteer participants were recruited at: the six Chicago Department on Aging regional senior centers; three Chicago Park District senior groups; two retirement centers that ranged in status from aristocratic (upper-middle to upper class) to subsidized senior living; an older-worker job placement agency; and, at a Corporate Responsibility Group that strives to advance the civic involvement of area businesses and increase dialogue among concerned citizens.

Except for the job placement agency, Corporate Responsibility Group, and senior groups, most of the cluster groups provided such services as recreational activities, case management, wellness programs, chore/housekeeping, congregate meals, emergency shelter relocation counseling, health education, home delivered meals, legal services/guardianship, respite, and access: transportation/assistance, information, and referral. In compliance with the Illinois Human Rights Act, the older American cluster groups were open to all older persons of

age 60 years and over of diverse gender, religion, ethnicity, education, and socioeconomic background.

### **Group II - Geriatricians**

Thirty-four volunteer geriatrician participated in the ground theory study. They included: 6 fellowship trained and board certified (by the American boards of internal medicine and family practice) geriatricians; 17 board certified geriatricians; and, 11 self-proclaimed geriatricians in private practices and geriatric health clinics. The geriatricians were recruited from major university teaching hospitals and other major hospitals, geriatric health clinics, and private practices from throughout the Chicago area. Professionally, they were all an integral part of internal medicine and family practice, and were concerned with the aging process and the diagnostic, therapeutic, preventive, and rehabilitative aspects of illness in older persons.

### **Group III - Gerontological Nurses**

Eight volunteer gerontological nurses participated in the study. Most of them provided care within the hospital setting of a major university teaching hospital, and at allied senior centers that are charitably serviced by these hospitals. The two exceptions among the eight consisted of one who also taught student nurses at a university, and one who provided services exclusively in community settings by way of fee-for-service.



The gerontological nurses provide health care to restore the older person's functional capabilities, and to prevent complications and excess disability.

#### **Group IV - Geriatric Social Workers**

Four volunteer geriatric social workers participated in the study. They provided social services and case management in the geriatric outpatient clinics of university teaching hospitals.

A select number of participants from the grounded theory research was recruited to: (a) share in a focused group discussion on aging, the aging process, and the health and social processes of older Americans; (b) review the prevailing geriatric practices, programs, and services; and (c) to strategically plan geriatric practices, programs, and services for older Americans in the twenty-first century.

#### **Focus Group Research**

The focus group research was conducted after the grounded theory research was completed. As in the grounded theory research, the sample selection for the focus group research was also divided by cluster groups. The sample size requirements were limited to a number sufficient to foster meaningful involvement and interaction in a group session. A more specific description of the focus group sample selection and size follows.

**Group I - Older Americans**

Four healthy, active, and functionally participatory men and women, aged 67 years and over, provided opinions, perspectives, and experiences regarding their needs and concerns, and their perceived needs and concerns of twenty-first century older Americans.

**Group II - Geriatricians**

Four diversely qualified geriatricians, two of whom are directors of geriatric medicine at university teaching hospitals, one who is on the geriatric medicine staff of a teaching hospital, and the fourth a self-proclaimed geriatrician, who provides clinical judgement and experience on geriatric issues, concerns, and trends.

**Group III - Gerontological Nurses**

Four gerontological nurses, three from geriatric outpatient clinics of university teaching hospitals and one community-based and self-employed, presented their perspectives of and explanations for some of the health and social processes of geriatrics.

**Group IV - Geriatric Social Workers**

Two geriatric social workers, from the geriatric outpatient clinics of university teaching hospitals, were earmarked to present the perspectives and concerns of social workers who provide social service assistance to older persons.

Also included in the focus group research was a Medicare representative and a director of a large federally-funded geriatric demonstration project (social and health maintenance organization). They were invited as consultants to help ensure that the strategic planning remained pragmatic yet insightful.

Matrix display, an independent problem-solving research activity in this study, was conducted by creating a matrix chart of assembled information from the grounded theory and focus group research.

With regard to subject confidentiality in the grounded theory and focus group research, protocol for confidentiality was followed throughout the research. In the grounded theory research method, the transcriptions from the semi-structured interviews, field notes, and the accompanying interview guides were assigned subject identifier numbers which were removed when a dense theory emerged and when the interview protocols were no longer needed. As such, this study entailed negligible risk to the well-being of the participants, while hopefully, it will provide substantial benefits to the quality of life for twenty-first century older Americans. (See an example of the subject identifier form in Appendix G that was attached to each subject's interview guide and audiotaped transcriptions.)

In the focus group research, the audiotaped transcriptions and researcher's field notes from the session

were filed without reference to subject identification. Subjects were also not assigned an identifier code on either the individual interview guide (see the focus group handouts in Appendix F), or the strategic planning modeling handout (Figure 12).

### **Data Collection**

The hallmark of grounded theory and focus group research is data collection and analysis. The approach to data collection is important because it dictates the meanings, perspectives, and explanations derived from how informants perceive and experience life's phenomena and interactive processes.

There are three major ways to collect data: (1) administer a standardized instrument; (2) administer a locally-developed instrument; or (3) record naturally available data (Gay, 1980). Gay states that, depending upon the situation, one of these ways may be most appropriate or a combination may be required. For this research study, it was felt that a combination of data collection activities was necessary to establish if the circumstances surrounding the lives of older Americans contribute to or deter their successful aging.

In the primary triangulation research method, grounded theory, a combination of data collection and data analysis (constant comparative analysis) took place simultaneously. It consisted of, in large part, contrasting, comparing,

replicating, categorizing, and classifying the in-depth perspectives of the older persons, geriatricians, gerontological nurses, and geriatric social workers, in order to develop concepts, insights, and understanding from patterns in the collected data.

Since the grounded theory method also involves an empirical and rational framework, constant comparative method and theoretical sampling, the issues of reliability and replicability were automatically resolved. For example, by continually coding and analyzing specific incidents in the collected data, concepts were able to be refined, their properties were identified, relationships were explored--one to each other, and these then were integrated into a coherent theory about the health and social processes of older Americans.

The theoretical sampling that is part of the progressive stages of analysis and theory development in grounded theory, allowed new phenomena and processes to be studied according to their potential for helping to expand on or refine the concepts and theory that had been developed. In other words, The theoretical classifications provided a means to check out hunches and raise specific questions, as well as check the scope and depth of any new facts.

To describe more specifically the grounded theory data collection activities in this study (and data analysis activities since these activities occur simultaneously in

grounded theory research), audiotaped interviews ranged from 1 to 3 hours in length for all subject groups. The in-depth, face-to-face semi-structured interviews were held in the privacy of an office or a meeting or conference room.

Each subject's verbal informed consent was obtained before initiation of all audiotaped interviews, and before any field notes were taken during the interviews. Fortunately, all subjects in the study willingly agreed to be audiotaped and allowed field notes to be taken during their interview(s).

Long before the focus group session took place, a description of the health and social practices, programs, and services was developed, as well as a plan of action. The description of the health and social practices, programs, and services, structured questions on demographic characteristics, health and social process variables, as well as program and service alternatives, may be seen in the focus group handout described earlier under the heading of interview guides (See Appendix G). The plan of action included a chronological sequence of events, due dates, and decision points where the plan could be modified or abridged. For example, the plan contained some of the following elements: subjects invited and confirmed, action steps before and during the session, date and time arrangements, conference room scheduling, audiotape equipment arrangements, pencils and strategic planning modeling handouts, and coffee, soft drinks, and food arrangements. In brief, the plan of action presented a

timetable of the sequence of steps, identified the tasks to be completed, and provided decision points for modifying the plan.

Scheduling the focus group session was difficult since most of the target groups had rigorous daily schedules. In contrast, cost considerations for the focus group session were not a problem because all participants were desirous of advancing geriatric health and social processes. Hence, the participants were enthusiastic about voluntarily sharing their expertise, experience, and perspectives to the cause of successful aging for twenty-first century older Americans.

Although focus group sessions appear to be relatively simple to conduct, they require structure and foresight for them to be successful. The focus group session for this study was conducted in a conference room at Loyola University Chicago. This site was selected for the session because it was perceived that a permissive and non-threatening site to the participants would nurture impartial perceptions and points of view. The focus group session was planned so that it would be relaxed, comfortable, and, optimistically, enjoyable for the participants as they shared their views, perceptions, and visions.

During the focus group research session, the participants had pre-arranged seating of mixed cluster groups around a conference table. Placed on the table before each participant was a place card with the participant's first name only (to

avoid the potential of bias associated with titles, etc), and a detailed handout that was to be read and referred to by each participant throughout the two and one-half hour focus group session (See Figure 12).

The conference table had been set up with two stationary audiotape recorders. They were equally placed so that none of the perspectives, opinions, and sage insights of the highly-qualified select group would be missed or slighted. Field notes were also taken throughout the session to complement the audiotapes with viewpoints on observations.

Before the focus group session began, the participants were welcomed, and researcher background information was provided in order to help generate confidence in the researcher (moderator). The participants were asked to tell the group something about themselves with respect to their geriatric position and experience.

After the introductions, the participants were briefed on the purpose and protocol of the session. They were apprised of their anticipated participation in the session, instructed on the use of the focus group handouts, and asked to respect the opinions and views of their fellow participants.

During the first half hour of the two and one-half hour session, the group reviewed and exchanged views on the information in the focus group handout (Figure 12). This exercise was intended to better familiarize the participants



with the focus of the session, and expose them to the available reference data.

The next hour was spent with the focus group dispersed into integrated group triads. These three groups of four participants, consisted of one participant from each of the separate cluster groups of older Americans, geriatricians, and gerontological nurses. The two geriatric social workers, Medicare representative, and SHMO representative were designated as floaters and consultants to the triads. The purpose of the triads was to execute strategic planning and restructuring of a geriatric health and social system. The triads were also provided with a strategic planning model that contained a list of possible inclusions in the geriatric health and social system, although use of the list was purely optional. Additionally, the triads were provided with a structure on which to rank and order their health and social system inclusions. See Appendix H for an example of the rank and order structure handouts.

The focus group research session was brought to closure by reassembling the triads into the aggregate focus group for the last hour of the session. the participants' time was spent deliberating the three newly developed geriatric health and social systems. Their focus was directed towards selecting from the three newly created geriatric health and social systems, and building one effective, efficient, and

operative system which would contribute to the successful aging of older Americans in the twenty-first century.

A detailed journal was kept by the researcher throughout the grounded theory and focus group research data collection activities. The journal contained notes on topics discussed in each interview and during the focus group research. It helped to keep track of topics discussed, observations made, emerging themes, and interpretations and hunches. The journal was a personal and daily record of research occurrences.

### **Data Analysis**

After data collection, the interpretation process becomes a complex task. First, the interpretations must be guided by the methods employed. Second, to avoid simplistic rendering of the phenomena under study, the data must be conceptually dense. Lastly, it is necessary to do detailed, intensive, microscopic examination of the data in order to illuminate the complexity of what lies in, behind, and beyond those data.

Data analysis was particularly complex for this study because it was necessary to interpret the perspectives of older Americans with diverse normality along the aging scale. Additionally, geriatricians were diverse in their levels of professional training and knowledge about the health and social status of contemporary older Americans. This existence of multiple variables within and between the principal study groups had the potential to create divergence in the overall research findings. Fortunately, the simultaneous data

analysis with data collection which occurs in the grounded theory method make uncovering the definitions of situations, and characteristic patterns of human actions and the associated meanings behind those actions, not only possible but verifiable. This is possible with the grounded theory method because it incorporates combined aspects of experimental inquiry: induction, deduction, and verification (Glaser & Strauss, 1967).

Induction, a qualitative paradigm that begins with data collection and observation (empirical events) and proceeds toward hypotheses and theories, enabled assessment of the human actions and the associated meanings of the primary but separate cluster study groups -- that is, the social processes (doctor-patient relationship) of the older Americans and geriatricians.

Deduction, a quantitative paradigm that begins with theories and general hypotheses and proceeds toward specific hypotheses (or anticipated observations), allowed the formation of plausible inferences from the collected data. And finally, these two processes, when combined, enabled verification of both discordant or complementary emerging themes.

Although data analysis for the grounded theory method was explained in the data collection section of this chapter (because these research activities occur simultaneously in grounded theory), a precis of the grounded theory data

analysis protocol (Forsyth, Delaney, & Gresham, 1984) is provided for the purpose of greater clarity.

In the grounded theory method, data analysis is carried out through use of constant comparative techniques in the following stages:

- (1) Identification of emergent substantive codes.

Initial interviews started with a broad statement or question like, "Can you tell me what it is like to be older in America today?" or "Do you consider yourself a geriatrician because you see a majority of older patients in your practice or because you have acquired specialized geriatric training?" Out of the older American and Geriatrician responses emerged initial codes, such as: uncertainty, lack of control (older American), and changing geriatric health status, majority older patients bring limited pay (geriatricians).

- (2) Grouping of emergent codes which delimited instances, indicators, or conditions of the related codes. Relating of the codes developed theoretical ideas (emerging themes, hypotheses) which were explored further in subsequent interviews. If the theoretical idea consistently reoccurred, it was retained in the matrix of accepted or validated codes.

(3) Theoretical sampling. The emerging theory directed what additional data to collect and gave indications about where to find the data. For example, as control issues in relationship to health and social processes were examined, the researcher questioned whether attitude, behavior, culture, and socioeconomic status could be a factor.

Succinctly, data analysis in the grounded theory method focused on process as opposed to units. This approach facilitated a primary focus on structural and psychosocial variables in terms of basic social processes, as opposed to a particular substantive or conceptual unit involved.

Data analysis in the focus group research consisted of examining, categoring, and summarizing the results of the focus group session. Planning and structuring a geriatric health and social system for older Americans in the twenty-first century.

Analysis began by recapitulating the intent of the study, to assure that the objectives of the research guided the analysis. The focus group session audiotapes, transcriptions from the audiotapes, field notes, and the strategic planning models were reviewed and compared for similarities, relationships, consistencies, and differences. For example,

- (1) Did the participants understand the issue or questions;
- (2) Did they communicate that the research issue was relevant;

(3) Did they change their position later in the discussion; and (4) Were the participants able to provide examples or elaborate on the issue when probed.

The focus group data analysis proceeded with categorizing and summarizing the findings of the general discussion at the beginning of the session. This procedure continued, to also include categorizing and summarizing the findings from the strategic modeling discussions during the triad group sessions. The next step was to categorize and summarize the findings from the general discussion of the reassembled focus group during development of the composite geriatric health and social system model. The final step was to study and summarize the focus group session geriatric health and social system model, and summarize the concluding discussions at the end of the focus group research session.

The focus group data analysis was similar to detective work. It consisted of looking for clues, trends, and patterns in the discussions, notes, and strategic planning models, and then identifying the categories of data to support evidence, strategies, concepts, and theories.

Data analysis for the matrix display method was conducted by first assembling organized patterns and themes from the grounded theory and focus group research. This method of analysis showed the data and analysis in one place, as on a spreadsheet. Similarities, differences, and relationships could easily be discerned to build a logical chain of causally

linked evidence, and to verify valid conclusions. The actual research study matrix display was a handcrafted creation of the researcher, because no agreed-upon data set-up or computer software program has yet been assembled for matrix display.

### **Discussion**

In this chapter, four major themes of the research methodology were presented. First, the concept of combining two disciplines, medical sociology and geriatric medicine, previously thought to be antagonistic were presented in a philosophical framework. Part of this presentation was an explanation of how these dissimilar disciplines can be combined to generate theory in complementary ways. This collaborative endeavor between medical sociology and geriatric medicine was ventured because it provided an opportunity to explore the health and social processes that influence and guide the lives of older Americans from both a sociological and medical perspective.

Second, two separate research paradigms that are often assumed incompatible were discussed because they were the dominant parent of the research methodology in this research study. Grounded theory, as developed and refined by Glaser and Strauss (1967), incorporates research strategies from the two paradigms and was the primary method among the three methods (triangulation) utilized in this research study. Its primary focus was to compare several groups, to understand the

meanings and explanation of the interactive health and social process.

A strength of the health and social process inquiry as linked to a triangulation research strategy illustrates the manner in which process can be investigated without relying on logical elaboration, intuitive insight, or other empirical analytic techniques. In other words, grounded theory, the primary method in this research study, provides a means by which the health and social process could be a consistent analytic focus rather than a serendipitous finding.

Third, focus group research was discussed because it was utilized to strategically plan a visionary twenty-first century health and social system in the interest of successful aging for twenty-first century older Americans. A discussion on Matrix display was included because it allowed the elaboration of facts, patterns, and themes that emerged from the grounded theory and focus group research in this study.

Finally, it was stressed that one research strategy should not be emphasized to the exclusion of others. This paradigmatic view of scientific inquiry limits the foundation on which we can build our knowledge. It also limits the way in which we can describe the many faces of reality.



**A QUALITATIVE STUDY  
IN MEDICAL SOCIOLOGY AND GERIATRIC MEDICINE:  
CHALLENGING PERSPECTIVES, PRACTICES, PROGRAMS, AND SERVICES  
FOR SUCCESSFUL AGING IN THE TWENTY-FIRST CENTURY**

**Volume II**

**by**

**Marian L. Watson**

**A Dissertation Submitted to the Faculty of the Graduate School  
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## CHAPTER IV

### RESEARCH FINDINGS

**Researcher:** Are you saying that you feel rushed during your visits with the doctor?

**Older American:** No, my friends say that they always feel rushed with their doctors. My doctor is very patient [with me]. She explains everything... about my diabetes, why and what she's doing. I don't like to take medicine. As soon as I feel better I want to throw it out, but she says "No, you have to finish it. After ten days don't take any more, and then if you have one or two left, throw it out." So I'm happy with her. But I think that it's not only the doctor, I think we have to help ourselves... Sometimes we depend on the doctor too much.

This chapter discusses the findings of the dissertation research. It presents the most common themes which recurred throughout the research investigation to determine if the geriatric health and social processes of contemporary older Americans contribute to or deter their successful aging. It also presents and discusses strategies to promote community geriatric health and social services, to meet the challenges facing the twenty-first century "healthy" and active older Americans, the American health care system, American social service agencies, and the federal, state, and local governments.

This chapter is organized around the four participating groups in the study, the older Americans, geriatricians, gerontological nurses, and geriatric social workers. It is organized in this way because these groups are the principals who currently influence and guide the well-being of the new breed of older Americans, a growing majority of persons age 65 years and over who are in reasonably good health and who require myriad psychosocial as well as health services for successful aging. This chapter begins with a presentation of the findings from the grounded theory investigation with the older Americans. Their demographic characteristics are presented, as well as their candid in-depth perspectives which brought into focus some of the camouflaged and familiar geriatric issues and concerns. It proceeds with the demographic characteristics and perspectives of the provider groups who interact in the health and social processes with older Americans - the geriatricians, gerontological nurses, and geriatric social workers. The results from each of these groups are discussed separately.

The research data gathered from the focus group research are presented next. These findings emerged out of the geriatric strategic planning which was done by the select group of older persons, geriatricians, gerontological nurses, and geriatric social workers. Their directives were to examine the health and population trends of older Americans, and the current and potential health and social services to

confront those trends. The focus group also contemplated the type of manpower and facilities that would be needed to provide such services.

This chapter concludes with a discussion of the overall findings. It emphasizes the link between culture, attitude, and behavior, and geriatric policies, practices, programs, and services.

Only those data that directly related to the research questions are presented as findings in this chapter. Altogether, there were 116 subjects who directly participated in the study, as well as numerous persons from the American Association of Retired Persons (AARP), American Cancer Society, American Dental Association, American Dietetic Association, American Geriatrics Society, American Hospital Association, American Medical Association, American Nurses' Association, Arthritis Foundation, Chicago Department on Aging, Duke University's Center for the Study of Aging and Human Development, The Gerontological Society of America, Gray Panthers, Health Care Service Corporation, National Association of Social Workers, Operation ABLE, PACE Social Health Maintenance Organization, United States Bureau of the Census - Chicago Regional office, and the United States Department of Health and Human Services. They contributed their knowledge, expertise, and experience to vanguard this research investigation.

## **Presentation Of Findings: Grounded Theory Research**

This presentation provides an encapsulated ethnographic account of the health and social processes of healthy, active and functionally independent older Americans, from the perspective of likewise contemporary older Americans. Specific attention is focused on the processes that involve geriatric practices, programs, and services as well as culture, behavior, and values. It presents views which may have been taken for granted: pessimistic attitudes and behaviors toward "healthy" and active older Americans; sporadic recurrences of often subtle and complex chronic conditions that could cause anxiety or depression in healthy and active older persons; and, governmental and societal authority that affect social roles, culture, values, and geriatric practices, programs, and services. This section exposes these views for conscious consideration. It begins with the profile and perspectives of the older Americans in the study.

### **Profile and Perspectives of Older Americans**

This research study included 68 older Americans who were considered in good health, and who were active and functionally independent in society. The definition for good health for older persons is defined in this study as the capacity for an individual to perform his or her valued tasks and basic activities of daily living with minimal physical,

emotional, and behavioral difficulties. This definition for health was developed upon finding that the existing definitions addressed, chiefly, the physiological dimensions of health for older persons, and that social dimensions were minimally addressed in comparison (Beck, 1989; Kane, Ouslander and Abrass, 1989; Knowles, 1979; U.S. Senate Committee on Aging, 1984; etc). The terms "active" and "functionally independent" for this study were characterized by a person's ability to live independently in the community, and manifest socially interactive behavior.

The general profile of the older American participants is summarized in Table 14. Other characteristics and the perspectives of the older American participants are discussed under the separate categories of socioeconomic status, health, diet, living arrangements, retirement and work satisfaction, lifestyles, life satisfaction correlates, and doctor-patient relationships.

### Socioeconomic Status

As indicated in Table 14, the older participants differ from the general population in several socioeconomic dimensions. On the whole, they are less educated than the general population today. Among the 32 percent participants who did not finish secondary (high) school, there was a large percentage of them who went to work early in life and who had only finished elementary (grammar) school or had no more than about two years of high school.

Table 14

## CONDENSED PROFILE OF OLDER AMERICAN PARTICIPANTS

Geographic Location:	Metropolitan city of Chicago and its suburbs.
Age Range:	65 - 82 years.
Gender:	65.4% female.
Ethnicity:	75% White, 8% Black, 4% Hispanic, and 2% Asian and American Indian.
Living Arrangements:	55% women and 14% men lived alone, 78% men and 42% women lived with spouses, and 3% women and 8% men lived with significant others (children, siblings, other relatives, etc.)
Children:	89% had adult living children, and 80% of the age 75+ lived within a 30 mile radius of their adult children, siblings, and significant others.
Education:	32% did not finish high school, 53% had a high school education, and 15% had 4 or more years of college.
Financial Status: *	Financial status ranged from approximately 17% at or below the poverty level, to about 65% at the median income level, and about 18% above the median income level. Social security, pension programs, and interest savings accounts were the major income sources.
Religion:	93% maintained some degree of religious belief or affiliation.

\* These statistics are estimates only since a few are based upon general responses, lifestyles, and observations. Most older persons were reluctant to discuss their financial status, although most persons at or below the poverty level eagerly provided financial information in the form of a complaint. According to the 1990 U.S. Census, poverty level for an older couple household is \$7,905, and \$6,268 for an older person living alone. Middle income is \$25,908 for Whites, \$16,647 for Blacks, and \$18,113 for Hispanics.



The lower income range was far more pervasive among the women than among the men. The lower income participants were mostly females who lived alone, and who had limited financial resources to safeguard them in case of an emergency. They tended to rely on the government for health care, Medicare and Medicaid, and governmental social programs and services.

Based on the standards set by the U.S. Bureau of the Census for income levels, the majority of the participants (65%) were in the middle income range. These participants, by and large, lived on incomes from retirement pensions, social security benefits, and income-producing investments. The income-producing investments seem to cause the middle- and upper-income participants considerable consternation. In different ways, when they discussed the low returns on their investments, most of them reflected back to the days of the great depression of the 1930s. Several of the participants who had interest-bearing accounts from savings had started to worry about their future. They commented: "I have begun to live frugally because I am concerned about a catastrophic illness that could reduce my income to at or below the poverty level." "I would dread dying in poverty after so many years of hard work and self-sacrifice to save for my retirement years."

The more affluent participants in the study (two were considered "wealthy") fell into the comfortable middle to the upper range of socioeconomic status. They were less concerned than the other participants about issues of finance, social

status, living arrangements, and health insurance. They were more concerned about their multifarious and recurring chronic conditions, most of which were not curable, some of which were not preventable, and almost all over which they felt they have no control. "Sometimes when the arthritis in my knee flares up, I'm limited in walking until that [expletive] nagging pain goes away." "When I was told I had diabetes I sat home for weeks crying. My father died early from diabetes."

Many of the participants were troubled that medical researchers have not found more cures, preventions, and controls for chronic conditions such as arthritis and diabetes, and in particular, Alzheimer's. A few of these participants talked about how beneficial the control of high blood pressure has been for older people. "They are able to control high blood pressure which ultimately reduces the rate of heart attacks. This one thing alone has saved hundreds, maybe even thousands of lives. But I suppose they wouldn't know what to do with all of us old folks if they kept more of us alive." Several of the participants expressed that older persons are not highly valued in our society, and therefore, research and development that has helped older people has been only a chance event.

Many of the participants were quite concerned about age-related attitudinal issues, although they themselves displayed attitudes of age- and sex-related bias during the study. "You know, across the board, older people are only tolerated in

this country, and older women are less tolerated than older men. That's at the doctor's office, stores, and banks." "I'm a healthy and active 69 year old man. I resent that society has declared me old, cast me aside, and I'm forced to conform." "I joined this corporate group because I needed to be around people that I have something in common with. You won't meet these kinds of people at those senior centers. Anyway, I hear that mostly old women go to those senior centers and I don't want to sit around a bunch of little 'ole ladies playing bingo and doing arts and crafts." Although the image of contemporary older Americans is varied, ranging from struggling widows to fun-seeking Floridians, most of the participants expressed great concern about health-related issues.

### Health

The older participants expressed that their health ranged from good to excellent; although most had at least one or multiple chronic conditions. Generally, they described conditions of diminishing vision and hearing, arthritis, high blood pressure, heart complaints, glaucoma, gout, and diabetes. Despite their chronic conditions, they were all reasonably healthy, active, and functionally-independent as established by the criteria at the beginning of the study.

A few of the "young-old" older persons, about age 65-70, got annual medical check-ups and had no health complaints except for weakening vision. They were generally very active,

and they said that they had recently begun to practice health prevention on the advice of their doctor. For example, they had cut back on eating fried foods, and drinking wine, beer, and "martinis." Some of them also said that they had begun to drink skim milk and 2 percent milk instead of whole milk, had stopped smoking, and had begun a walking routine for exercise.

The self-reported and observed health index of the older participants appeared to be correspondent with activity involvement and diet, even though functionality has long been purported to decrease with increasing age. For example, it became apparent during the course of the interviews that those older persons who said they (1) exercised regularly, (2) led active lives, and (3) observed healthful practices by not smoking, limiting intake of unhealthy foods and beverages, and by utilizing illness prevention services, seemed to be more fit and less lethargic than the other participants in the study, regardless of age. This finding suggests that society must reject the belief that with aging comes infirmity.

Of the 68 older participants, 14 percent reported minor limitations in their activities of daily living. "My hands are sometimes swollen when I first get up in the mornings because of my arthritis." "Because of my heart condition, I stay close to home a lot when the weather is below freezing or when its real hot and humid outside." "I know that I could get relief from my minor ailments if I went to the doctor, but they don't seem to want to listen to minor complaints."

At least 85 percent of the participants were limited by chronic conditions in more subtle ways. "I can't see anything without my eyeglasses." "Because of diabetes, I go to a podiatrist to get my toe nails clipped even though I'm on a fixed income and can't really afford it." "My blood pressure medication makes me run to the bathroom a lot. I'm always scared that I won't make it [to the bathroom] in time. I don't take the medication sometimes when I know I'm going out, or I just make up an excuse not to go out."

The older participants who had more active roles outside the home seemed to experience fewer difficulties with limitations in activities of daily living. Those participants who had full or part-time jobs, did volunteer work, shared social interaction and relationships, and engaged in outside leisure activities, displayed quickness in their step, appeared to have positive outlooks on life, and generally, believed that their lives were as good as it had ever been. For example, the majority of them reported that as they continued to engage in social roles and obligations, often ignoring their "few aches and pains," the distraction of the activity generally abated the aches and pains. "I know its all in my head, but when I'm at the church doing volunteer work, I don't get tired as quickly and my arthritis never acts up." "My doctor said that my blood pressure dropped after I started swimming at the Y."

In interviews with some of the lower income female participants at the senior centers, the women talked about being overweight and going on a weight reduction diet even though they did not appear overweight. Follow-up interviews with these women disclosed the reason for their concern. Upon query, they displayed ideal weight cards on which had been recorded their weight. These cards had been given to them by the visiting residents from the local university teaching hospitals. When the women compared their weight to the ideal weight, theirs could be construed as overweight.

This scenario gave evidence that ideal weight for older persons is different than that for younger persons. Moreover, based on the literature review in Chapter II, women at age 70 tend to have twice the amount of body fat as they do at age 20, and are generally more sedentary than women at age 40. These two factors described in the literature accounts for the slight weight increase with increasing age. This finding would suggest that a body weight standard should be developed for men and women age 65 years and over.

Most of the participants expressed grave concerns for their degenerative health. They were concerned that a steady deterioration in their health would result in eventual isolation and that they would spend their last years in a nursing home. They did not want to rely on their adult children or the "State" for health and social service assistance should they become disabled. They were also

plagued by the threat of being alone and suffering from loneliness. "Right now, I earn my own living. I feel really good about that. I don't want to be a burden on my kids." "My husband died four years ago but he had been sick for two whole years with Alzheimers before he died... I took care of him. I'm in good health now, but if anything happened to me, I don't know what I would do. I worry about that."

Almost all older Americans have access to Medicare health benefits, however, the majority of the health care services covered by Medicare are acute care interventions. These services were appropriate to health care for older persons in 1965 when Medicare was first enacted. However, with prevailing increases in longevity and decreases in acute diseases and illness, Medicare has become obsolete for most older persons. Many of the participants in the study compensated for this predicament with their retirement pension plan, their deceased husbands' pension plans, and, for those who could afford it, purchase of additional health insurance.

About 80 percent of the White middle- and upper-income participants in the study had additional insurance to cover the cost of treatment and control of any serious chronic conditions. At least 50 percent of the non-white participants had additional coverage. These participants were cognizant that if they were to develop a serious chronic or disabling ailment, they would not be covered by Medicare. They also recognized that they would have little access to private

insurance coverage after a serious illness because they lacked full-time employment, and that the private insurance companies would reject them for coverage due to their disability.

Health insurance concerns were not foremost among the participants who were at or below the poverty level, even though their health care problems are compounded by a lack of ability to purchase additional health care insurance, make required copayments, or purchase necessary rehabilitative services or equipment. Falsely assumed, they seemed to believe that Medicare and Medicaid would meet their health care needs. In fact, total Medicare and Medicaid reliance by the healthy poor is complicated by a social stigma often imposed by many health care providers. For example, some of the doctors in the study said that they prefer not to treat Medicare and Medicaid patients for such asunder reasons as lower and delayed Medicare and Medicaid reimbursement, liability concerns, and "a frequent lack of these patients' participation in their own wellness and illness prevention."

### Diet

In terms of diet, nutritional deficiency may be a problem for many older Americans because their eating habits and physiological needs have not yet been established, and their dietary intakes, diseases, and culture may place them at high risk of malnutrition. Findings in this study seemed to indicate that although nutritional deficiency may affect the health and longevity of a significant percentage of older



Americans, older men may be more at risk for nutritional deficiency than older women.

It is acknowledged that the male population in the study was small in comparison to the overall older male population in the country. However, emerging themes in the grounded theory research showed evidence that a great deal of the health problems in older men stem from causes which are not medical in the physiological sense, but which are economic, social, and cultural. The impact of poverty, social isolation, and patterns of nutritional behavior in men is considerable.

The male participants at the senior centers said that they attended the centers only for the hot meals served there five days a week. These low to middle income men predominantly lived alone, and said that they almost never cooked for themselves at home. The majority of them said that they subsisted on mostly hot and cold cereal and hot coffee which they prepared at home, and the meals they ate at the centers. The men were not too concerned about their diets because they said that they had never eaten a lot of fruits and vegetables. They had been mostly "steak and potato" men. "I've never cared much about what I ate. Women are the ones who are fussy eaters." These men seemed to be sedentary at the centers, and said that they were not very functional in social roles and activities they considered to be of valued tasks to them.

The patterns of the male participants at the senior centers were augmented through observation of the other men in

attendance at the centers. For five days, all of the men who attended the six regional senior centers were observed to exhibit similar patterns of behavior to the male participants. Specifically, it was observed that between 10:30 and 11 o'clock in the morning, the men would begin to arrive at each of the senior centers and immediately reserve the meal that was served from 11:30 a.m. to 12:30 p.m. Although the price of the meal was fixed, it was contingent upon the older person's ability to pay. This was an added attraction for the meal because the flexible price made the meal available to older persons without regard to economic status. During the interim of 10:30 to 11:30 a.m. before the meal was served, it was observed that the men would socially isolate themselves and read or watch television, and a sparse few would play pool. The men would leave the centers immediately after they finished eating, even though the centers remained open until 4:30 p.m. in the afternoon with scheduled activities. These social patterns and behaviors were later validated by each of the directors at the six senior centers. They each said that almost all of the men in their senior center population, approximately 10 percent of 14,000, attended the senior centers exclusively for the meals.

After themes emerged in the grounded theory research which indicated that men who attended the senior centers were at risk for being nutritionally deficient, further investigation was made on the men in the other cluster groups.

findings showed that the men at the subsidized retirement center had similar eating habits to the men at the senior centers, and were similarly sedentary. The only exception to the eating habits was that the men at the subsidized retirement center ate their one main meal at restaurants, or at the center when on rare occasions some of the men and women shared in a "pot-luck" meal.

The men at the "aristocratic" retirement center had dissimilar eating habits to the men at the senior centers. Their nutrition could be considered good to excellent, and they were functionally participatory in most of the retirement center activities. All of the male participants at the retirement center were married and ate regular nutritious meals. They ate meals that were either prepared by their wives who had been counselled to prepare well-balanced meals at their apartments, or at the retirement center restaurants where they had dietitian planned meals. Access to good daily nutrition may be one other explanation for why most married men live longer than single men.

The eating habits of the men at the job placement center and corporate responsibility group could not be clearly identified. Nutrition information captured from the interviews was inconclusive because several of the participants were guarded in their responses about eating habits, and it was impossible to gather information through observations since meals were not served at these cluster

groups. As seen in Table 14, there were no male participants in the cluster group that met in the park.

In contrast to the men at the senior centers, it was observed that most of the women also ate at the centers, but said they cooked well-balanced meals at home although not as often as when they had families for whom they cooked. A few of the women also brought their packaged lunches from home which they ate during the congregate repast with the other men and women. Further probing into the eating habits of the male and female participants during the interviews elicited almost no additional information on nutrition. The participants seemed to associate eating habits with socioeconomic status, and most of them were guarded about income and social status.

It is interesting to note that, in the earliest nutritional studies, a functional focus was often present (Berg & Cassells, 1990). Berg and Cassells state that these early studies had a socioeconomic as well as a biological motivation and were usually concerned with preservation or restoration of physical, psychological, social, or economic function by nutritional means. Many of the early justifications of the school milk, lunch, and breakfast programs for poor children were based on improvements in functionally related criteria (e.g., lowered absenteeism rates, greater alertness). Just as the function of children was linked to nutrition in early studies, this study links functionality to nutrition in older persons.

Beck (1989), Berg and Cassells (1990), Kane, Ouslander, and Abrass (1989), and several others argue that metabolic and physical changes typically accompany the aging process. They argue that these changes could affect intake or absorption of nutrients, and this, therefore may render the current extrapolated recommended dietary allowances (RDAs) inaccurate. This would suggest that RDAs should be developed for persons age 65 years and over since separate recommendations for most nutrients do not now exist for persons beyond 55 years of age.

The American Dietetic Association was contacted to determine if they could provide information on the nutrition of "healthy," active, and functionally-independent older persons. They shared a report by J. Dwyer entitled Screening Older American's Nutritional Health: Current Practices and Future Possibilities, which was released by the American Dietetic Association and the House Select Committee on Aging in February 1991. They considered this report to be the most comprehensive review ever undertaken to examine the prevalence of malnutrition and nutrition-related problems among older Americans. Dwyer, using widely accepted criteria, found that a substantial proportion of older Americans have dietary intakes or diseases which place them at high risk of malnutrition. However, Dwyer's report, as well as several other reports on the nutrition of older persons, linked malnutrition to socioeconomic status, not to gender difference, marital status, or the culture of men. The

American Academy of Family Physicians, the National Council on the Aging, and the American Dietetic Association, with a Blue Ribbon Advisory Committee of more than 35 medical, nutrition, and aging organizations will use Dwyer's study as the foundation for a major multidisciplinary consensus conference which will be held April 8-10, 1992 in Washington, DC.

A longitudinal nutrition study of older men and women at senior centers throughout the country might be worthwhile since they have available clusters of ethnic, gender, socioeconomic, religious, and educational diversity.

### Living Arrangements

As observed in Table 14, 55 percent of the older women in the study lived alone in contrast to only 14 percent of the men. These women were mostly widows, and contrary to the popular view that widows living alone are far more physically and emotionally vulnerable, these women said that they became more active six months to a year after their husbands had died than they were before their husbands died. "After my husband died I learned to drive and manage my own business. I'm much more independent now than I ever was before." "Two years after I retired from teaching, my husband died. I was mourning my husband for a long time and then I started to miss the kids and the activity from when I taught. Finally, after about a year of depression and loneliness, I started taking courses at the university, and now I'm thinking about teaching some adult classes on a part-time basis."

An exception to these findings may be healthy older women who live alone in rural areas. They may be vulnerable, physically and emotionally, because these women may be socially isolated due to geographic isolation, lower income status, lack of transportation and communication, and inadequate health and social support. Health and social support in this study is defined as social interaction with family members, friends, and community health and social service individuals, groups, or network agencies.

A majority of the older persons living alone said that they preferred not to live with their children. Their comments varied from not wanting to be a burden on their children, to being burdened by their children. Since older persons today are more healthy and capable of being functionally active, it seems they are less willing to accept a dependent or subservient role even for their children. Likewise, as discussed in the literature review in Chapter II, two career husband and wife adult children are less willing to care for their parents today than they would have been in the past.

The higher percentage of participants in the study who live with a spouse, 78 percent men and 42 percent women, as compared to the percentages from a 1989 U.S. Census, 74 percent men and 40 percent women, may be due to the good to excellent health status of the participants in the study, or reflective of an increasing trend in longevity among both male

and female older persons. The disparity between men and women living with a spouse is virtually the same in both cases, however, this researcher questions why the discrepancy is so great. The Aging America: Trends and Projections explained the discrepancy in men and women who live with a spouse as:

Men have shorter average life expectancy, and thus, tend to predecease their wives. In addition, men tend to marry women who are younger than themselves. Finally, men who lose a spouse through divorce or death are more likely to remarry than are women in the same situation. Elderly widowed men have remarriage rates over eight times higher than those of women.

(Aging America: Trends and Projections, 1991 Edition, p. 183)

Based on the findings in this study, this explanation for the disparity between the sexes may be too simplistic. Differentials may also be due to male nutritional deficiency in later life, or to male learned behavior that links certain lifestyles to virility, and illness prevention to females and weakness.

### Retirement and Work Satisfaction

For years our national retirement system and health and social services were sufficient to accommodate most older Americans. However, in recent years, older Americans have begun to spend at least 20 percent of their lives in retirement (Aging in America: Trends and Projections, 1991). Findings in this study indicated that neither the nation's financial entitlement programs for older Americans, nor the correlates for life-satisfaction are sufficient to meet the



needs that come with increased longevity and better health. At least 90 percent of the participants said they would work at least part-time if they could, even though some of them appeared to be too sedentary. This percentage included housewives who were never in the labor force but wished to work to subsidize their incomes. The ratio of men to women in the study who had been in the labor force was 2:1.

The majority of men said that they left the labor force because it was imposed on them rather than its having been their own choice. The few participants who were still working almost exclusively said that their work was keeping them "active and alive." They also expressed that their attitude and overall outlook on life were more positive than the outlooks of their spouse and male contemporaries who were not working.

Most of the male participants in the study, when asked about life-satisfaction in general, centered the major part of their life-satisfaction correlates around work. They spoke of life while they worked, and life in relationship to work. "I miss the satisfaction of work. I was in control of my life then." "I really find it difficult to conform to aging." "I miss the relationships I had at work." "I don't get together with the guys [from work] much anymore, and when we do [get together] its different." "I'm a healthy 69 year old man. I resent that society has declared me old and I'm forced to conform."

Although mandatory retirement has been eliminated in this country for most types of work, both the male and female participants argued that age bias still exists. Ninety-six percent of the participants who had been in the labor force retired at or before age 65 years. The participants who were still working were self-employed, part-time workers, and volunteers. Further analysis showed that management and self-employed participants were men, except for one female who was a full-time employee in management for a seniors' volunteer organization. The volunteers in the study were almost exclusively female.

Eighty-three percent of the older men and women who had worked yearned for the relationships they had developed through work. Many of them had not continued the relationships because of geographic distance and lack of shared interest outside of work. A large percentage of them said that they would have continued to work even though they did not particularly enjoy their jobs.

The women who lived alone and who volunteer work also spoke about their work, but they also discussed their children and significant others. In contrast, women who lived alone and did not work, or lived with a spouse and had never worked outside the home, spoke mostly in relationship to their children, family, and friends. These findings may be reflective of an age-old American culture, where men are

valued for their work and the work that they do, and women are valued in their relationship to the home and family.

Overall, the majority of the participants in the study no longer worked. Those who still worked were predominantly white males, although a few were white female but who worked mostly on a part-time basis. The majority of the participants would have continued working if they could have. In short, most of the participants would work full-time or part-time if work were available for the social interaction (#1), self-satisfaction (#2), and subsidy to their incomes (#3).

### Lifestyles

All of the older men and women in the study were actively involved in some form of activity outside the home. However, on average, the women in the study were far more involved in outside activities than the men. For example, at the six regional senior centers, the eight male participants would go exclusively for a hot meal without partaking in any social interaction, or participating in the recreational activities, exercise, or arts and crafts as did most of the women. Although 90 percent of the women at the senior centers also partook in the meals, for them the senior centers represented a place for social interactive opportunities. The female participants in the study said that they came to the centers for the (ordered ranking): social interaction (#1); group activities (#2); congregate meals (#3); health assessment and

health education (#4); transportation assistance (#5); and field trips (#6).

All participants at the aristocratic retirement center were married, lived with a spouse, and engaged in healthful lifestyles. They were urged to become actively involved in wellness behavior and well-planned leisure activities. They were taught how to prepare and eat well-balanced and nutritious meals, and were encouraged to become involved in social interaction. The center was a luxury residential complex to which persons aged 62 years and over pay an entrance fee, and a monthly assessment fee for maintenance. The center provides health, social, and optional nutritional and legal supportive services.

None of the study participants at the subsidized retirement center was married. Each pays a monthly rental fee that is based on income. The not-for-profit federal, state, and locally subsidized retirement center provided only limited recreational and social services, no health services, and a nutrition option of breakfast. Most of the participants at the subsidized center complained that the available services were not sufficient to meet their needs. The one man and three women of an average age of 67 to 74 years stated that they are willing to pay out-of-pocket for better health and social services, particularly, one hot well-balanced meal each day.

### Life Satisfaction Correlates

The majority of the participants were relatively satisfied with their lives. On average, they rated their health good to excellent. The incidence of daily activity limitations was low, and none of the participants received assistance with activities of daily living.

Life satisfaction correlates were interesting in this study. While most of the participants were satisfied with their lives in terms of health, they were dissatisfied with their social roles in society. "I sometimes feel that nobody cares what I think." "I used to be in the center of everything before I retired from work."

Most of the men in the study identified their lives with the world of work. In essence, they said that they felt cut-off from their real identity at age 65, when they still felt healthy and robust.

The women who were widowed said that they felt disconnected from mainstream society starting at the time of their husbands' death. They said that they began to feel socially isolated. Some of them thought that it may have been self-imposed, however, most of them believed it to be imposed by society. They indicated that sexism and ageism were the leading factors that isolated them - they were no longer coupled with the identity of their husband (sexism), and older women are not highly valued in American society (ageism). The women felt that increasing their level of activity outside the

home was the way many of them were able to actualize their own identity and improve their self-esteem.

A high percentage of the participants were active in church activities, and a few of them, most of whom were women, utilized their skills and experiences in volunteer programs. A few of the participants also spent one to three months of the winter (ranging from October to April) in a warmer climate, such as Florida.

Educational attainment for contemporary older Americans was lower than is projected for most twenty-first century older Americans, 12.1 versus 12.4 years. The changing social context of schools in the early 1970s made education more obligatory and accessible for the twenty-first century older Americans. In fact, the story that follows highlights an experience that links educational achievement, culture, attitude, and behavior with life-satisfaction correlates.

One intelligent 76 year old Hispanic participant of Mexican descent said that when he came to America at age 6, he entered the school system and was tormented his entire first year of school by the teacher and fellow students because of his limited English proficiency. Since his parents were migrant workers, he changed schools frequently; however, his despairing experiences continued. He became so discouraged that he dropped out of school at grade 7, and became a migrant worker like his parents. He asserted that his early school experiences had affected his socioeconomic status, behavior,

attitude, and overall quality of life. This story was told here because it is indicative of the social context of schools for many contemporary older Americans. It is a metaphor for understanding the concept of how social roles can affect life-satisfaction correlates and overall quality of life. Following is an example.

The disparaged participant was in good health. It is conceivable because an increasing population of older Americans are experiencing improved health due to the many advances in medicine. Public health has likewise eradicated many crippling diseases. In addition, Americans in the last two to three decades have steadily become better educated on the benefits of healthful lifestyles and wellness behavior.

The participant suffered from social isolation and depression. This could have been due to a lack of socialization into mainstream society in his early life, and hence, less of a proclivity towards social interaction in later life.

The participant's career as a retired migrant worker left him without a retirement pension, limited social security benefits, and no additional financial resources. These circumstances left him with minimum health care benefits to accommodate his current, and perhaps, impending chronic conditions. He accepted "the aches and pains of old age" because he could not afford to pay for medical attention not covered by Medicare. In addition, his oral health (by

observation) was wanting because he never received the necessary dental treatment. Dental care is not covered by Medicare and he could not afford to pay for Medigap or other private health insurance.

In terms of nutrition and diet, he survived on the one meal a day which he purchased at the senior center at a reasonable price for which he could not afford elsewhere. In short, this participant's early educational experience, imposed social role, financial deprivation, and hence, hindrance to disability prevention, affected his life satisfaction correlates, and overall quality of life.

### Doctor-Patient Relationship

How physicians relate with older patients and the health status they present seems to be influenced by knowledge, experience, and culture. Findings in this study on doctor-patient relationships indicated that there are certain barriers to a good doctor-patient relationship. For example, the participants in this study described fear as a barrier. They indicated that they had fearful attitudes at the doctor's office as a result of their lack of understanding of the illnesses of old age in general, and of their own bodies in specific. "I was afraid to go to the doctor because I was afraid I had cancer." They were fearful of successfully communicating their ailments and symptoms to the doctor. "I went to the doctor because my hip was sort of hurting after I fell. He told me that I just couldn't see and should be more



careful because I was getting old. I felt worse than before I went to the doctor."

Although 80% of the participants had sought medical attention for treatment of their chronic conditions, most did not share in the responsibility for altering or controlling their conditions. On average, the participants who had seen a doctor said that they expected the doctor to treat their condition(s), and most expected the doctor to give them medication to alleviate their pain and suffering. "I see my doctor every three months because he wants to check my high blood pressure, heart condition, and lungs to make sure my medicine is still working." "When I go to the doctor, I expect him to tell me what's wrong with me, so I don't tell him a lot after I tell him where it hurts."

Many of the participants did not completely trust their doctors. Those who had long-time personal physicians seemed to trust them, with one exception. One participant told this story. She was so pleased with her doctor that she recommended him to her friend. Her friend visited her doctor and came away so displeased with his manner, "poor" examination and diagnosis, and "ill-advised" treatment that she sought the opinion of another doctor. Now she, the story teller, lacks trust in her own doctor and is considering a change. The results from a 1991 American Medical Association survey on patients' trust of doctors showed that patients trust their own doctors but do not trust doctors in general.

The story above indicates that although a patient may trust his or her own doctor, the lack of trust in doctors in general can both "piggyback" and "mushroom" into a lack of trust in a patient's own doctor in specific.

A majority of the male participants in the study had no relationship with a doctor. Most of them got infrequent medical examinations, and a few of them admitted that they asked their wives to get medical advice for them during their visits with the doctor. Two of the male participants who said that they had never received medical attention said they did not go to the doctor because they didn't feel sick. "It would be a waste of money." "It would be sissy to always run to the doctor."

Without knowing it, these men may have a controllable chronic condition that, if left unchecked, could develop into other health complications. As indicated in the literature review in Chapter II, studies have confirmed that an older person can have one chronic condition that can cause multiple health complications. Moreover, the literature review also indicate that the greatest incidence of illness and expense are incurred in an older person's last year of life. These men, and other older persons like them, add to these statistics. If the two men have a controllable condition and eventually receive medical attention from a doctor, they may not form a good doctor-patient relationship because of what may appear to the doctor to be a lack of patient interest in

his own health. The chance of multiple health complications would also add to the expense of treatment.

It is important to note that while a majority of the male participants had no established relationship with a doctor, many of the men at the senior centers and aristocratic retirement center got their weight, height, blood pressure, eyes, and hearing checked by visiting resident doctors and staff doctors, respectively, on a regular basis. In addition, many of the men at the centers sought medical attention from the part-time gerontological nurses. Based on these findings, it appears that men will get medical attention when it is convenient and discrete, although their learned behavior may keep them from seeking medical attention unless they are seriously ill.

Sufficient time with the doctor was another concern for the participants. Most of them complained that they felt rushed during their doctor's visits. "When I go to the doctor, I expect to see the doctor, not spend 5 minutes with the doctor and the rest of the time with the nurse." They said that they are all too often told by the doctor "you can expect a few aches and pains, you're getting old." Some feel they are over medicated or given an unnecessary pill. "Doctors are pill pushers."

Some participants who had heard of geriatricians thought that they were just high-priced doctors. "More overpriced than regular doctors." After explaining to them that there

are fellowship-trained and board-certified geriatricians who have advanced knowledge and skills in managing the chronic conditions of older persons, get lower pay than high-technology specialties like radiology or surgery, and are concerned about the personal aspects of their lives, they seemed more positive about geriatricians, but were still apprehensive about cost.

In-depth interviewing regarding a team approach to health care for older persons, that is, health care that involves a geriatrician, gerontological nurse, and geriatric social worker, seem to indicate that several of the participants would agree to the team approach, depending upon the seriousness of their health status. This finding was surprising because many of the participants had expressed strong views in earlier interviews that they had confidence in treatment from the doctor only. After explaining the roles and capabilities of a gerontological nurse and geriatric social worker, they indicated that they would agree to see a gerontological nurse and geriatric social worker before, or even in lieu of, seeing the doctor.

The context of the doctor-older patient relationship is a relevant issue. The health and social processes of the relationship are complex because the processes often involve multiple chronic conditions of the older patient, and they frequently call for multiple health and social services. Within this framework, the health and social processes are

often complicated by the inclusion of a team of family members.

Findings in this study indicated that the doctor-older patient relationship is difficult to define. With the exception of the participants who grew old with their doctors, most of the participants spend a modest amount of time with their doctor. Within this timeframe, the relationship was often constrained by the sobering circumstance surrounding the symptoms of their illnesses. Moreover, the culture of the doctor-patient relationship described by many of the female participants seemed to reduce them and the doctor to a "parent-child" pattern of behavior. Culture in this case refers to the system of accepted behavior which the doctor and patient followed.

Bloom (1963) expounds on the expected patterns of behavior in his book The Doctor and His Patient. He asserts that the doctor has certain privileges and obligations when he inquires into the patient's health and social experiences, and the patient respects this system of rules with reciprocal behavior. His analysis, and the findings from this study, indicate that the characteristics of the doctor-older patient relationship will remain vague until the physician's system of rules and learned behavior change. This can only be achieved through continuing education on the doctor-older patient relationship in medical school, seminars and workshops, journals, and within the culture (social legacies the

physicians acquire from their group) of the fraternal medical organization to which they belong. Patients, likewise, need to be educated on their obligation to take responsibility for their own health maintenance and illness prevention.

A condensed profile of the older Americans who participated in the study is provided in Table 15 on page 296, entitled "Condensed Profile of Research Study Participants."

### **Profile And Perspectives Of Geriatricians**

Thirty-four geriatricians from Chicago and its suburbs participated in the grounded theory research study. The participants included 17 board certified geriatricians, 6 fellowship trained geriatricians, and 11 "self-proclaimed" geriatricians. They ranged in age from around 30-70 years, however, most of them fell within the 35-55 year old category.

Although the age range of the geriatricians in the study was wider than is usual in most studies, the data indicated that the age of the physicians made no significant difference in the physician's attitude towards their older patients. In this study, it was found that attitude (good, bad, or excellent) was relative to the level of training, knowledge, and skills in geriatrics. Table 15 on page 296 entitled "Condensed Profile of Research Study Participants," provides an analysis of the geriatricians by corresponding category.

By gender, the geriatricians were weighted heavily towards being male. There were twenty-two male and twelve female participants. Initially, the research was designed to

include a probable mix of geriatricians without regard to gender. However, emerging themes from the in-depth interviews with older persons and geriatricians during the pilot study and early stages of the research pointed to the necessity to include more female geriatricians. For example, several of the older female participants said that their female doctors took their medical problems more seriously than their male doctors had. "She spends more time listening to my complaints and doesn't just shoo me out of the office with a pill."

Four of the community-based geriatricians, one male and three females, concurred with the theme of the older persons. Their perspectives led them to believe that the female in medicine is more compassionate because of her innate maternal instincts. Each of them indicated that the importance of compassion towards older patients is not emphasized in medical school, follow-up clinical training, or within medical fraternal organizations.

An... important attribute of the physician's role is called by [Talcott] Parsons "affective-neutrality." This means that the physician is expected to be objective and emotionally detached. There is a subtle balance required in this particular aspect of his [her] role. The doctor is expected to have concern for his [her] patient, to be sympathetic and understanding. On the other hand, in the special privileges given him [her] with the patient's body and life history, he [she] is expected to be neutral in judgement and controlled emotionally.

(Bloom, 1963, p. 94)

Kane, Ouslander, and Abrass (1989) argue that older persons often have chronic conditions and other ailments that

are not yet possible to cure, and are often difficult to control with only medical treatment. However, many of the self-proclaimed and a few of the board-certified geriatricians in the study prescribed medication in most cases, albeit a placebo in some cases. A placebo is a substance that has no pharmacological effect but given merely to satisfy a patient who supposes it to be a medicine. "Most older patients aren't happy unless they get medicine before they leave the office."

All of the fellowship-trained and most of the board-certified geriatricians were "compassionate" with their patients. They spoke of and seemed concerned about geriatric care issues that extended beyond the physiological perspective. For example, these geriatricians spoke quite extensively on their perception of the diagnostic, therapeutic, preventive, and rehabilitative regimen for the older patient as a unit of treatment. They considered the psychosocial needs of the older person to be a distinct part of the problem and treatment. To the detriment of older persons, this study found that although fellowship-trained and board-certified geriatricians are the most qualified in treating older persons, they are almost always staffed in the outpatient clinics of hospitals and their affiliate clinics, and are not located in the communities where the majority of older persons seek medical attention.

When asked about the gender differential of their older patient population, some of the community-based geriatricians



were concerned that many older men do not get periodic health assessments. One geriatrician (family practitioner) mentioned that in her practice, which has got mostly older females, husbands will seek her medical advice through their wives in lieu of going to the doctor themselves. Two of the community-based self-proclaimed geriatricians (geriatricians in their opinion because they had a higher population of older patients in their practice and not because they were self-educated through journals, seminars, or conferences, board-certified or fellowship-trained) indicated that they did not have the time or the skills to assist their older patients with their psychosocial needs. Adding to this problem for older persons, findings in this study indicated that the majority of the community-based geriatricians had no direct source of referral to a gerontological nurse or geriatric social worker to assist them in offering quality geriatric health care.

In terms of time spent with the older patients, most of the geriatricians expressed that older patient's require almost twice the amount of time to diagnose and treat as younger patients. "It takes a long time just for the older patients to get undressed." "The older patients are not always clear in describing their ailments." "It takes longer with an older patient because sometimes what they describe as an ailment may be the symptom of another medical problem."

Fellowship-trained, board-certified, and self-educated geriatricians all strongly advocated that physicians who treat

older patients should investigate the social, behavioral, and psychological, and well as the physiological dimensions of their patients. "Doctors should not just go for the easy 'quick-fix' by dispensing pills, even though some patients prefer pills because it is easier than modifying their lifestyles." "Doctors should refer more services to the social worker. They should obtain a thorough history and physical to get at the facts of their social and behavioral realities. They should get their patients to take more responsibility for their own health."

Many community-based family practitioners and internists, and several geriatric board-certified internists seemed to be quite concerned with the economic bottom-line of geriatrics despite their affinity for the discipline. They expressed that because older patients "usually" take more time for doctor visits, their economic bottom-line is affected because it is based on the number of visits. Consequently, some geriatricians are beginning to see fewer older patients because the Medicare payment for seeing them is less than the usual and customary fee-for-service payment. Since the majority of older persons rely on these doctors for their health care services, such unapparent but problematic reductions, if left uninvestigated and corrected, could adversely affect the health care of twenty-first century older Americans.

During the interviews, specialty trained geriatricians, internists, and family practitioners outside the teaching hospital setting had major concerns about the June 5, 1991 Health Care Financing Administration's (HCFA) rules that guide the National Physician Fee Schedule. For example, Medicare physician fees are determined based on a relative value weight for each procedure, a geographic adjustment, and a conversion factor. Some physicians who treat older patients outside of the teaching hospital setting are concerned that their bottom-line fee will be even lower, already much below the remuneration of almost all medical specialties, for example, orthopaedics, heart surgery, radiology, and others.

In brief, most of the geriatricians expressed that most older patients are women, require more compassion, twice more time for diagnosis, and frequent follow-up visits, depending, of course, upon the type of illness and degree of normal aging. They argued that these components decrease their bottom-line income, and are not equitably factored into the physician fee schedule.

All of the geriatricians in the study felt that they are victims of a badly structured government system of financing medical services. Many of them argued that the physician is expected to accept Medicare assignments without reservation, spend twice the time for about half the money to treat older patients, treat chronic conditions with seldom any gratification of cure, and then cope with a variety of forms,

fiscal intermediaries, Medicare and Medicaid provisions, deductibles, co-insurance, covered and non-covered services, and delayed government reimbursements.

As an after thought, each geriatrician solicited inquired as to how long the interview would take. Each agreed to about a 30-minute interview. The participants spoke freely in providing their geriatric perspectives, and as a result, each of the interviews lasted from between 1-2½ hours. This fact alone indicates that the geriatricians are particularly concerned about the state of health care for older Americans, and are eager to participate in bringing about change which will positively affect older persons today and into the twenty-first century.

### **Profile And Perspectives Of Gerontological Nurses**

The eight gerontological nurses in this study ranged in age from about 25-55 years old. All participants had at least a master's degree and two participants had doctorate degrees. They were all trained in the physiological and psychosocial dimensions of older Americans. Table 15 on page 296 entitled "Condensed Profile of Research Study Participants," provides an analysis of the gerontological nurses.

The gerontological nurses believed in the team approach to health care for older persons which, at present, seems only to be practiced in hospital settings and clinics of affiliating hospitals. They feel that because their services have not generally been accessed by community-based doctors,

their roles in the health care field have been neglected. They feel that they could be an asset to doctors treating older persons by: (1) doing histories and physicals to reduce the time older patients require with the doctor; (2) evaluating the social, psychosocial, cultural, and spiritual dimensions of the patient; (3) following-up on the doctor's therapy plan to assure compliance; and (4) evaluating the patient's family relations and relations with their significant others. "Sometimes I feel that all my training and experience is not valued by either the doctors or the older patients."

Five of the eight gerontological nurses who were on the staff at Chicago area university teaching hospitals also worked part-time at various Chicago area senior centers. They provided services at the the senior centers that included:

- Individual and group health teaching.
- Individualized diet, stress reduction, and exercise recommendations.
- Screening for conditions such as high blood pressure and diabetes.
- Physical examinations.
- Education on specific health problems (such as arthritis, heart disease, depression, etc.), and training in how to rationally cope with such conditions.
- Health assessment to determine if a physician should be consulted.
- Responding to questions about medication.
- Counselling and support regarding personal problems.

- Referrals to other health professionals and community resources.
- Health promotion and illness prevention.

The gerontological nurses indicated that they would like to be more involved with community-based doctors in the care and treatment of older persons, however, they were unsure as to how they would be paid. They talked about fee-for-service. Some of them had tried this approach by charging older persons at the Chicago Department on Aging senior centers a \$2.00 fee for each visit. However, this approach did not work for several reasons. First, the older persons did not understand that the gerontological nurses who visited the centers once a week were highly trained and skilled in geriatric health care. Second, resident doctors from the university teaching hospitals visited the centers at least once a month to do health assessments, and the older persons mainly wanted to see them because their services were more highly valued. The gerontological nurses said that there were other reasons which they did not discuss during the interviews. None of them were discouraged by the failure of the fee-for-service approach. They indicated that under different circumstances, the project probably would have worked. One participant discussed the possibility of a geriatric membership health club, wherein the older persons would pay a small fee for gerontological nurse services.

Some of the gerontological nurses expressed anxiety that doctors may become concerned about infringement should they

practice fee-for-service in the communities. "Doctors are fine with gerontological nurses in a hospital setting because they maintain the power and control over patients' care and treatment. However, if we were in the community independently making fee-for-service geriatric health care decisions, probably both the doctors and their organizations would chase us out of town."

It became clear during the research that the gerontological nurses were a missing link in the health care of older persons. In-depth interviews with the eight gerontological nurses indicated that they are compassionate and sensitive to the chronic conditions and social realities of healthy and active older persons. "I listen carefully to the older persons when they are describing their health problems, because sometimes it is not even medical, they just need to be socially connected." "I ask my older patients to bring in all their medication in a brown bag and we screen through it together. I try to make them feel like they are a part of their own health care."

Interviews with several older persons and specialty trained geriatricians seem to corroborate the importance of gerontological nurses in the care and treatment of older persons. "I like her. I get a chance to get my blood pressure and pulse checked and this way I don't have to go to the doctor so often." "With a gerontological nurse around, I have time to see more patients that need attention."

## Profile And Perspectives Of Geriatric Social Workers

The four geriatric social workers in the study were all hospital-based. They all managed well-regarded case management programs whose services included:

- Prescreening and assessing the older patient to determine their needs assessment.
- Care planning to coordinate the available services and rehabilitative therapies.
- Monitoring the appropriateness and effectiveness of the care and treatment.
- Outpatient Information and referral services.
- Patient and family counseling.
- Financial guidance.

The geriatric social workers in the study functioned in a team approach to geriatric health care in providing health and social services. They all felt that their roles were valued by the geriatricians and gerontological nurses on the team, because they had networks that would allow them to provide the psychosocial services that are so important to the successful aging of contemporary older Americans. They indicated that a team approach to health care for older persons might solve the doctor-older patient time-factor problem. A condensed profile of the geriatric social workers is provided in Table 15 on page 296, entitled "Condensed Profile of Research Study Participants."



Table 15

## CONDENSED PROFILE OF ALL RESEARCH STUDY PARTICIPANTS

Subjects	Cluster Group	Age Range	Gender		Income Level	Doctor-Patient Relationship	Attitude Toward Older Americans	Society's Understanding of Group
			Male	Female				
Older Americans								
	Senior Centers	65 - 82	8	27	Low-Middle	Good-Bad	Average	Poor
	Retirement Centers	69 - 77	5	9	Low-Middle-High	Good	Average	Poor
	Senior Group in the Park	71 - 79	0	7	Low	Good-Bad	Poor	Poor
	Corporate Group	65 - 78	3	0	High	Good	Poor	Poor
	Seniors Job Placement	65 - 72	3	6	Low-Middle	Good-Bad	Good	Poor
Geriatricians								
	Fellowship Trained (Hospital Based)	30 - 45	4	2	----	Excellent	Excellent	Poor
	Board Certified (Hospital-Clinic Based)	35 - 60	12	5	----	Good-Excellent	Good-Excellent	Poor
	Self-Proclaimed (Community Based)	35 - 70	6	5	----	Good-Bad	Good-Poor	Good
Gerontological Nurses (Hospital-Clinic Based)		25 - 50	0	8	----	Patients: Excellent	Excellent	Poor
Geriatric Social Workers (Hospital-Clinic Based)		25 - 35	0	4	----	Patients & Families: Excellent	Excellent	Good

## **Presentation of Findings: Focus Group Research**

The personal factor [in focus group research] is the presence of an identifiable individual or group of people who personally cared about the evaluation and the information it generated. Where such a person or group was present, evaluations were used; where the personal factor was absent, there was a correspondingly marked absence of evaluation impact. The personal factor represents the leadership, interest, enthusiasm, determination, commitment, assertiveness, and caring of specific, individual people. These are the people who are actively seeking information to reduce decision uncertainties so as to increase their ability to predict the outcomes of programmatic activity and enhance their own discretion as decisionmakers. (Patton, 1986, p. 45)

The personal factor was not the only important factor involved in this focus group research. It also involved situational flexibility to gain the ultimate conceptual awareness from the group of older persons, geriatricians, gerontological nurses, and geriatric social workers.

After general group discussion about the prevailing geriatric health and social practices, programs, and services in this country, discussion ensued about the health and population trends of older Americans. The group pursued this discussion by sharing their own experiences. "My arthritis started acting up and one of my friends told me if I drank milk it would help. I starting drinking a glass of skim milk everyday and I haven't had any problem with arthritis since." This is only one example of comments from the four older persons.

As the group became more familiar with each other, and proceeded to seriously "get started," one group discussion about geriatrics in the hospital setting and geriatrics in the community went like this. "At the hospital, we work as a team with the nurses and social workers. Our quality of care is much higher, and we are able to service a lot more patients who are in need of care." "I think its a good idea but I can't afford it at my office. Medicare is sure not going to pay for it." "How about if a group of doctors got together and shared the expense?" "We probably wouldn't have the volume of Medicare patients to support it." "Anyway, what if my team had seen 50 older patients in a week and the other Doc's team saw 20. What happens then?" "Are we back to quality vs. quantity." "I hope not." "What kind of staff are we talking about? You know some older people can take a long time per visit."

Such discussions as described above established the importance of assembly to discuss the prevailing geriatric options, practices, programs, and services. After one-half hour of discussion, the assembled group formed smaller triad groups where they focused on the strategic planning to accommodate successful aging in the twenty-first century. The results of each of the three strategic planning sessions are listed in Tables 16, 17, and 18.

Table 16

## (FOCUS GROUP TRIAD #1 STRATEGIC PLANNING RESULTS)

## INTERDISCIPLINARY TEAM CARE CENTER

- \* Health care clinic
- \* Health education
- \* Professional geriatric care training
- \* Medication monitoring / counseling
- \* Health screening / assessment
- \* Two-way communication:  
community = specialty geriatric professionals
- \* Nutrition monitoring / counseling
- \* Activities program
- \* Volunteer opportunities
- \* Job placement
- \* Health insurance counseling
- \* Financial counseling / estate planning
- \* Transportation program
- \* Congregate meals
- \* Regular social events
- \* Housing counseling
- \* Language classes
- \* Fitness classes
- \* Spiritual counseling
- \* Dental examination and prophylaxis
- \* Ophthalmology service
- \* Laboratory tests / diagnostic X-ray exams
- \* Audiometric testing
- \* Geriatric professionals referrals
- \* Legal counseling
- \* Retirement counseling
- \* Family counseling
- \* Adult day care
- \* Child care
- \* Newsletter

Table 17

## (FOCUS GROUP TRIAD #2 STRATEGIC PLANNING RESULTS)

## COMMUNITY COMPREHENSIVE CARE NETWORK

(Geriatric Professionals Team Approach)

## MOTIVATION FOR WELLNESS

- \* Health education
- \* Medication counseling
- \* Health screening / assessment
- \* Support group for chronic ailments
- \* Fitness classes
- \* Nutrition counseling
- \* Chronic condition management
- \* Dental examination and prophylaxis
- \* Podiatric service
- \* Newsletter

## RESTORATIVE CARE

- \* Nursing / rehabilitative service
- \* Ophthalmology service
- \* Professional geriatric care training
- \* Pharmacy service
- \* Calling in / telephone network
- \* Podiatric service
- \* Dental examination and prophylaxis

## INTERGENERATIONAL PROGRAM

- \* Adult day care
- \* Child day care
- \* Congregate meals
- \* Student visitation program
- \* Language classes

## COUNSELING NETWORK

- \* Family counseling
- \* Spiritual counseling
- \* Widows / widowers counseling
- \* Legal counseling
- \* Job Placement
- \* Housing planning
- \* Health insurance counseling
- \* Financial counseling / estate planning
- \* Retirement planning
- \* Home safety assessment
- \* Newsletter

## RECREATION ACTIVITIES

- \* Fine restaurant dining
- \* Activities program
- \* Leisure opportunities
- \* Regular social events
- \* Recreational opportunities
- \* Newsletter

## TRADITIONAL SOCIAL SERVICES

- \* Transportation
- \* Home delivered meals
- \* Respite care

Table 18

## (FOCUS GROUP TRIAD #3 STRATEGIC PLANNING RESULTS)

## COMMUNITY COMPREHENSIVE GERIATRIC SYSTEM

- \* Marketing
- \* Health care clinic
- \* Pharmacy service
- \* Physician referral
- \* Health education
- \* Professional geriatric care training
- \* Medication monitoring / counseling
- \* Health screening / assessment
- \* Database case management
- \* Two-way communication with community = geriatric professionals
- \* Home health care services
- \* Nutrition counseling
- \* Legal counseling
- \* Health insurance counseling
- \* Family counseling
- \* Financial counseling and estate planning
- \* Retirement planning
- \* Job placement
- \* Transportation program
- \* Adult day care
- \* Child day care
- \* Congregate meals
- \* Home safety assessment
- \* Career counseling
- \* Professional referral service
- \* Regular social events
- \* Housing counseling
- \* Telephone monitoring service
- \* Language classes
- \* Fitness classes
- \* Spiritual counseling
- \* Support groups for chronic ailments
- \* Widows / widowers counseling
- \* Recreational opportunities
- \* Volunteer opportunities
- \* Leisure opportunities
- \* Chronic condition management
- \* Computerized prescription drug monitoring
- \* Activities program
- \* Audiometric testing
- \* Computerized patient history referral service
- \* Home delivered meals
- \* Fine restaurant dining
- \* Student visitation program
- \* Nursing and rehabilitative service
- \* Ophthalmology service
- \* Dental examination and prophylaxis services
- \* Laboratory tests and diagnostic X-ray examinations

You will notice that the triads had different perspectives about what services would accommodate successful aging in the twenty-first century. For example, Table 16 provides twenty-first century interdisciplinary team care in a community setting. It is innovative because it brings together high quality geriatric health and psychosocial services outside of an institutional setting. This interdisciplinary network contains, for example, a health care clinic, health education, professional geriatric care training, chronic condition management, meals, and a variety of counseling.

Table 17 provides a twenty-first century comprehensive care center. It includes the major components of health maintenance and illness prevention in one community network. The dominant subheadings are: motivation for wellness, restorative care, counselling network, recreation activities, intergenerational program, and traditional social services such as transportation, home delivered meals, and respite care. Although this community network is innovative, it is traditional in the sense that high-quality geriatric health care remains in an institutionalized setting.

Table 18 provides an explosion of twenty-first century geriatric community health and social services. This focus group triad included most of the service options from the list of service selections. They proposed that twenty-first century older Americans will require, no - demand, that a

diversity of service options be available for them in the community. They believed that the needs of the twenty-first century older Americans will engender a geriatric care system that differs substantially from the disconnected health and social geriatric services which exist today. "The twenty-first century older American will want to be among all age groups in a health club type environment, have one-stop shopping for health and psychosocial services, and have the option of a nutritional meal in the ambience of fine dining or a congregate cafeteria setting."

After reassembly of the triad groups into the larger focus group, heated debate ensued. Some participants in the focus group were enthralled by the complexity of the health and psychosocial services considered to meet the needs of healthy, active, and functionally independent older Americans in the twenty-first century. They emphasized that high-quality geriatric practices, programs, and services should be located in the communities and convenient to the people. Others indicated that too many options in one network might become too bureaucratic. Quality would decline and cost would spiral. Still one or two less visionary participants were willing to leave health and social services as they were.

The moderator (researcher) listed the twenty-first century geriatric practice, program, and service components on the blackboard as the focus group negotiated, compromised, and progressed through the maze of twenty-first century geriatric



options. They created a community comprehensive health and social center network that included diagnostic, therapeutic, preventive, rehabilitative, psychosocial, legal, nutritional, and traditional social services in the interest of successful aging for twenty-first century older Americans. The components of this network are contained in Table 19.

The community comprehensive health and social center model (See Table 19) was taken to the Chicago Department on Aging senior centers and shown to 17 of the older men and women who had participated in the Grounded Theory research. The intent was to get their perspectives on the model. Each of them were asked: (1) to give their opinion about the model; and (2) would they like to see this type of health and social center in their community. All of the respondents immediately expressed concerns about cost - who would pay for such an extensive network of programs and services, and could older persons afford to go there? They were told that the planners had proposed that the cost would be shared among the federal, state, and local governments, corporate sponsors, providers of services, and older persons. For example, the planners had proposed that the older persons would pay a membership fee based on income (similar to a fee paid at a YMCA or YWCA), and then a fixed fee-for-service depending upon service use. Overall, they were receptive to the model.

In response to question (2), would you like to see this type of health and social center in your community, they liked

Table 19

## COMMUNITY COMPREHENSIVE HEALTH AND SOCIAL CENTER

## MOTIVATION FOR WELLNESS

- \* Wellness seminars
- \* Medication assessment / counseling
- \* Health screening / assessment
- \* Support group for chronic ailments
- \* Fitness classes
- \* Nutrition assessment / counseling
- \* Chronic condition management
- \* Health education
- \* Newsletter
- \* Marketing

## RESTORATIVE CARE

- \* Health care clinic
- \* Nursing / rehabilitative service
- \* Ophthalmology service
- \* Professional geriatric care training
- \* Pharmacy service
- \* Calling in / telephone network
- \* Podiatric service
- \* Dental examination and prophylaxis
- \* Physical therapist
- \* Newsletter
- \* Professional referral service
- \* Database case management  
(including pharmacy medication)
- \* Two-way communication:  
community = specialty professionals

## INTERGENERATIONAL PROGRAM

- \* Adult day care
- \* Child day care
- \* Congregate meals
- \* Student visitation program
- \* Language classes
- \* Fine restaurant dining

## COUNSELING NETWORK

- \* Family counseling
- \* Spiritual counseling
- \* Housing planning
- \* Widows / widowers counseling
- \* Legal counseling
- \* Career counseling / job placement
- \* Support group for chronic conditions
- \* Health insurance counseling
- \* Financial counseling / estate planning
- \* Retirement planning
- \* Home safety assessment
- \* Volunteer opportunities
- \* Newsletter

## RECREATION ACTIVITIES

- \* Library
- \* Exercise room / classes
- \* Field trips / excursions
- \* Activities program
- \* Leisure opportunities
- \* Regular social events
- \* Recreational opportunities
- \* Arts / crafts / woodworking
- \* Pool games
- \* Newsletter
- \* Seminars / workshops

## TRADITIONAL SOCIAL SERVICES

- \* Transportation
- \* Home delivered meals
- \* Respite care
- \* Convenience shopping
- \* Housekeeping

programs and services. "It sure would solve my problems of transportation." "I would pay a reasonable fee to use services that I know I need but don't use now." "A place like that would give older people choices... we could try to find work, volunteer, or just have some place nice and safe to go." "I'd like being with people of other ages ...learn new things." "We would have access to health care from doctors that understand our aging problems." "I think a lot of us would be less scared to go to the doctor if he or she was right in the Center where we went everyday. I put off going to the doctor because I'm always scared that he'll find something serious like cancer." "I would still go there just to eat if only women went there."

### **Discussion**

The findings in this research study disclosed a wide range of geriatric health and social issues. Contrary to the popular view that older persons are on a hopeless and declining health trajectory, this research indicated that the health index of older Americans is correspondent with activity involvement and diet. Therefore, society must reject the belief that with aging comes infirmity.

During the course of this study, it was found that older Americans were held to the standards of ideal weight as defined for persons of average age. Since body composition and activity level generally change with increasing age, an

ideal weight chart needs to be developed for older men and women aged 65 years and above.

A particularly interesting finding was that older men may be nutritionally deficient and infirmed due to their own neglect, primarily because of their culture. The research indicated that men who live alone, and sometimes those men who live with a spouse, often do not eat regular or well-balanced meals. They tend to eat more meat than vegetables. Moreover, the research indicated that most men, living alone and with spouse or significant other, generally do not seek a health assessment or examination unless it is (1) required because of illness, or (2) forced because of a spouse or employment. Furthermore, without knowing the recommended dietary allowances (RDAs) for older persons, older men may be more nutritionally deficient than we know or suspect. In the literature review, it was found that current extrapolated RDAs are based on the nutritional requirements (nutrient intake and absorption) for persons age 55 years and under.

In terms of life satisfaction correlates, findings indicated that most older Americans, particularly older men, resent that society declared them old at age 65 and that they were forced to conform. They feel cut off from their lifelong identity, and relinquished to unemployment, limited financial resources, social isolation, and lowered self-esteem, even though they are still healthy, robust, active, and functionally independent.

The findings which emerged when studying doctor-patient relationships indicated that there are certain built in barriers to a good doctor-patient relationship. These barriers consist of: (1) patient's fear of the unknown in relationship to illnesses developing in their own bodies; and (2) culture of the doctor-patient relationship that is propagated by the patient, medical schools, clinical training, and the fraternal organizations to which the doctor belongs.

An important finding was the disparity in geriatric services. Findings from both the grounded theory and focus group research showed that the most knowledgeable and skilled geriatric providers, that is, geriatricians, gerontological nurses, and geriatric social workers, practice within the confines of hospital institutions and their affiliate clinics, and the majority of older Americans seek medical attention from doctors within the community. The focus group research strategic planners built a model community comprehensive health and social center network to correct this disparity. In their model they provided geriatric practices, programs, and services in the community. They allowed for some health and social services on a full-time basis, and some that were either consultative or on an as needed basis.

When the model for the community comprehensive health and social center was shown to some of the former participants in the grounded theory research to get their perspectives, they expressed both concern and jubilation. They were concerned

that the extensive amount of programs and services were not financially feasible - that the government would not subsidize them, and they couldn't afford them. Hence, the network would fail. Several others were happy that they would have access to quality health and social services right in the community. They said that they would be less fearful of getting their health assessed (#1); they liked having access to job and volunteer opportunities (#2); they liked congregate meals, and programs with younger people (#3); and, they said they would be willing to pay a reasonable fee for some of the services.

In summary, these findings give evidence that the American culture clings to attitudes, behaviors, and misconceptions about aging that impact the health and social status of older Americans, and hence, their overall quality of life. Our misplaced values about their place in society affect the health and social processes in which they interact, the policies, practices, programs, and services which they must rely upon, and their own attitudes about themselves.

This study and these findings have been about healthy, active and functionally independent older Americans. These findings, which were driven by methodologies that link theory to practice, indicated that high-quality geriatric practices, programs, and services must pervade the communities where healthy and active older Americans reside and function before successful aging can be realized in the twenty-first century.

## CHAPTER V

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

What good are they [good health and a long life] if old age cannot be a time of satisfaction, continued personal fulfillment, and social respect?  
(Callahan, 1987, p.19)

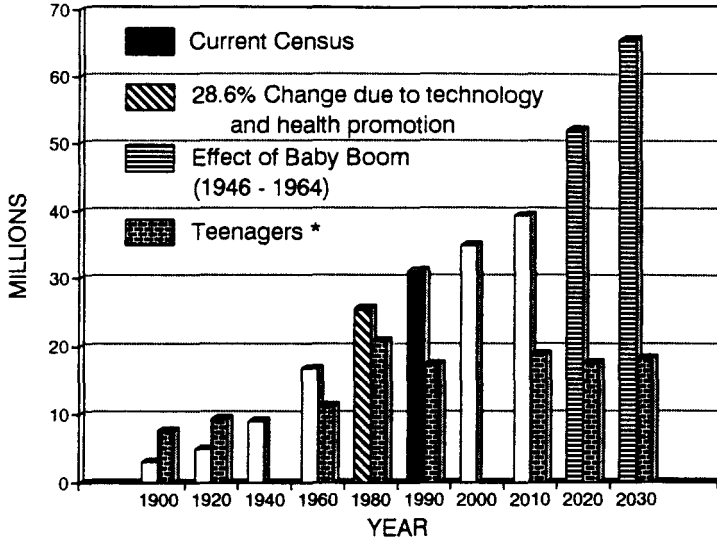
#### Summary

The unprecedented population growth of healthy, active, and functionally independent older Americans is a testimony to the basic health and social reformation in America. The current increasing longevity, accelerated population growth, and shifts in health and social status can all be attributed to the reduction in infectious and parasitic diseases, public health education and information, the high birth rates after World War II, reductions in infant and maternal mortality, and improved nutrition.

It is not news that the American society is aging. What is relatively new is that the population of older Americans now outnumbered that of teenagers, and lifespan appears to be rising. Figure 13 provides a demographic comparison between older Americans and teenagers from the year 1900 to a projected comparison for three decades into the twenty-first century.

Figure 13

NUMBER OF PERSONS 65+ vs. TEENAGERS\*:  
1990 to 2030



\* For years 1900 through 1960, teenagers are those age 14 through 17;  
for years 1980 through 2030, teenagers are those age 15 through 19.

Source: U.S. Bureau of the Census, A Profile of Older Americans: 1991.  
Prepared by the Program Resources Department, American  
Association of Retired Persons (AARP) and the Administration on  
Aging (AOA), U.S. Department of Health and Human Services,  
Washington, D.C.: U.S. Government Printing Office, 1991.



It is noteworthy that chronic conditions still plague older Americans despite their improved functionality and longevity. America's ability to deal with the issues of chronic conditions faced by healthy, active, and functionally independent older Americans, has been hampered by a society that is youth-driven, and a culture where older persons are not highly-valued. Williamson (1980) argued that part of the stigma imposed on older Americans may be due to an association of old age with one's own mortality. Williamson suggested that the way that people, even physicians, react to older persons may depend upon how they feel about aging in general and about their own personal aging in specific.

The perspectives of older persons in this study, as well as data from countless other studies that are discussed in the literature review in Chapter II, give credence to Williamson's theory. The older persons in this study characterized the attitudes and behaviors manifested towards older persons in our society as tolerance, antipathy, avoidance, pessimism, and negativism.

Clearly, stereotypic attitudes and behaviors towards older Americans in our society need to be transformed. Even though physiological, sociological, behavioral, and psychological research on aging, to a limited extent, has been ongoing, many policies and practices that govern the health and social processes of older Americans are out-of-date. For example, geriatric health care practices continue to be more

concerned with treating acute conditions that are based on cure and expedience of care, than the long-term chronic conditions that afflict older persons - a majority of whom are active and functionally independent in the community. parenthetically, Medicare, the national health insurance for older Americans, is based on the acute-care paradigm.

In this same context, medical education provides instruction and training in geriatrics in only 13 of the 126 American accredited medical schools so that basic knowledge about older patients is sorely lacking. In addition, most older persons aged 65 and over are excluded from the labor force, and as a result, they are relinquished to vaguely-defined social roles in a society that is work-centered. They are confronted with diminishing financial resources because escalating health care costs are eating away at their what is often fixed-incomes. And, they are vulnerable to social isolation and depression because they are not valued in society.

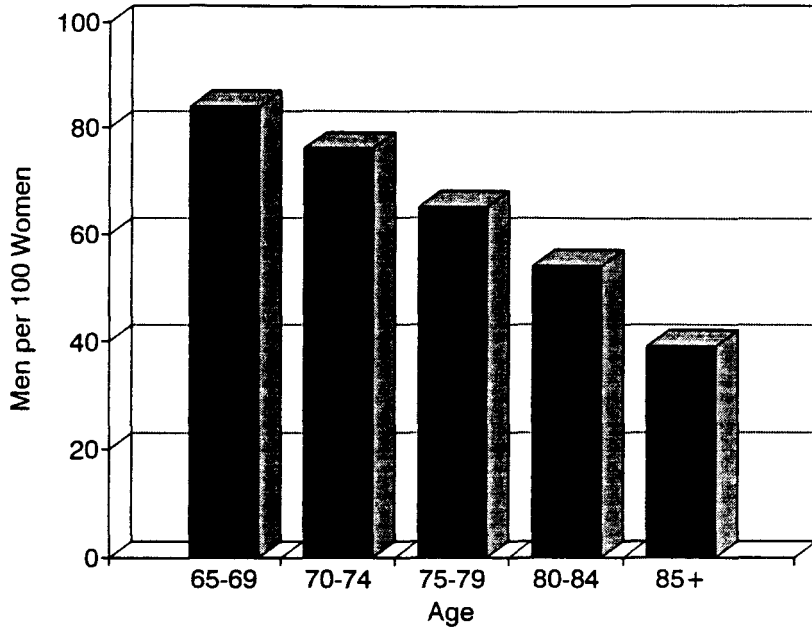
Berg and Cassells (1990) insist that although our culture's pessimistic attitude toward aging is intolerable, when a health professional dismisses chronic conditions as "just getting old," they are closing the door on counselling and treatment that could spare an older person years of discomfort, isolation, or disability. They argue further that when it carries over into our nation's health policies, it denies older persons access to health and social programs and services, and dignity that could prolong their lives.

A particularly interesting finding in this dissertation study was that older men may be nutritionally deficient and infirmed due to their learned behavior and the culture of men. This finding could possibly explain the disparity in the mortality modality between men and women, and why married men live longer than men who live alone. Figure 14 displays the number of men per 100 women by older age group for 1989.

This research indicated that men who live alone, in particular, and other men who are married or live with significant others in general, often do not eat nutritious and well-balanced meals. A shining example is the announcement made by the President of the United States in 1990 that while he eats pork skins he neglects to eat broccoli. Other examples expressed in this study are, for instance, "real men only eat steak and potatoes." Or, "I've never cared much about what I ate. Women are the ones who are fussy eaters."

Recent epidemiologic studies have indicated that consumption of cruciferous vegetables, such as cabbage, broccoli, brussels sprouts, kohlrabi, and cauliflower, may reduce the risk of human cancer, particularly of the gastrointestinal and respiratory tracts. Specifically, it was reported in the Proceedings of the National Academy of Science (14 March 1992) and by the American Cancer Society (5 January 1990) that diets high in fats may be a factor that increases human cancer risks, while diets high in cruciferous vegetables

Figure 14

NUMBER OF MEN PER 100 WOMEN  
BY AGE GROUP: 1989

Source: U.S. Bureau of the Census. U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1989. By Frederick W. Hollman. Current Population Reports. Series P-25. No. 1057. March 1990.

which contain large amounts of sulforaphane, like broccoli, may reduce the risk of some cancers.

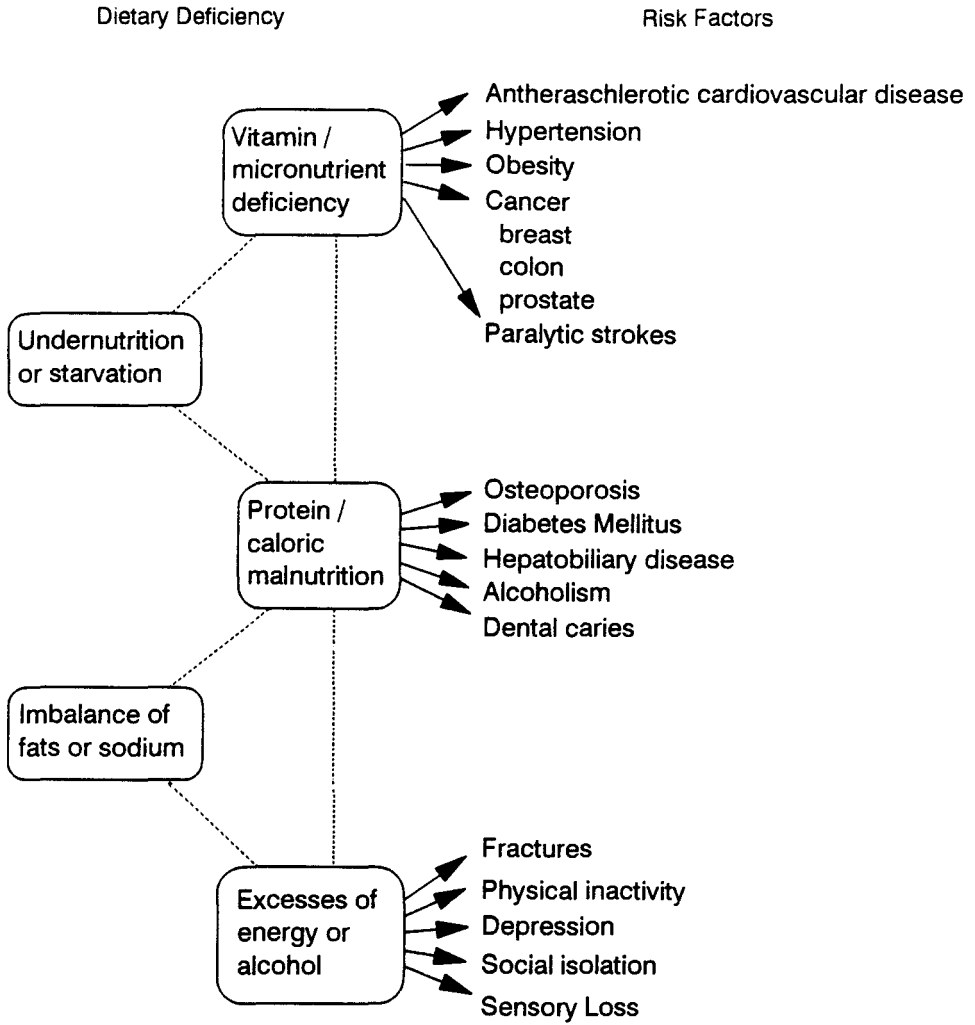
Until recently, little attention has been paid to the nutritional status and nutrition-related needs of older persons. Prior nutrition concern has been largely confined to the problems associated with malnutrition, and these issues have mainly dealt with the nutritional deficiencies of young children, minorities, and the poor. In a literature search, this researcher was unable to find any study that specifically linked nutrition and health to the culture of men.

Dwyer (1991), using a widely accepted criteria, found that a substantial proportion of older persons have dietary intakes or diseases that place them at risk of malnutrition. The types of malnutrition includes deficiencies, imbalances, and excesses in varying combinations. Figure 15 displays some of the health risk factors which Dwyer found to be associated with nutritional deficiencies.

One can see in Figure 15 that cancer is a high risk factor for nutritional deficiency. In telephone conversations with the American Cancer Society, they indicated that 63 percent older men aged 65 and over died from cancer in 1988 in contrast to 37 percent older women in this age group (2,740 cases for men versus 1,586 cases for women). This higher percentage of cancer for men may be due to nutritional deficiencies, or to the fact that men often do not seek

Figure 15

RISK FACTORS ASSOCIATED WITH NUTRITIONAL DEFICIENCY



medical attention to maintain wellness and prevent or control illness.

Findings in this study indicated that most men, young or old, whether they live alone, with a spouse, or with significant other, generally do not seek medical attention, or take advantage of available illness preventative services. The exceptions to this rule are (1) men who seek medical attention because they are urged to do so by a parent, spouse, or significant other, and often this is at the onset of an illness, and (2) men who seek medical attention because it is mandatory under the rules of employment.

This study also found that standards for recommended dietary allowance (RDAs) and ideal weight have not been established for men and women aged 65 and over. Without knowledge of what nutrient intake and absorption should be expected, or what ideal weight should be maintained, older men and women could be at greater risk for nutritional deficiency, obesity, or infirmity than we know or suspect. In the literature review, it was found that current extrapolated RDAs and ideal weights are based on requirements for persons age 55 years and under.

Many of the geriatric programs and services are not linked to the health and social realities of contemporary older Americans, and this omission affects a population of people who experience 20 percent functional disorders (disabilities), 15 percent cognitive disorders (depression),

and frequently undiagnosed social isolation that impacts both functional and cognitive disorders. It has been argued that the major exceptions to medical progress has been those non-acute diseases which are associated with aging, that is, chronic conditions such as cancer, cardiovascular diseases, arthritis, etc. Moreover, despite the gains in medical research and technology, and an increasing understanding of the aging process, negative images and misconceptions about aging persist, and culture, attitude, and behavior still govern the health and social processes of older Americans.

The findings which emerged on the doctor-patient relationship indicated that there are certain built in barriers to a good doctor-patient relationship. These barriers consists of: (1) patient's fear of the unknown in relationship to illnesses developing in their own bodies; and (2) culture of the doctor-patient relationship that is propagated by the patient, medical schools, clinical training, and the fraternal organizations to which the doctor belongs.

Based on other findings in this study, the doctor-patient relationship, so popularly discussed today, may not be an issue in the twenty-first century. In certain contexts of the doctor-patient relationship, it may be valid to retain the standardized system of behavior that has been established by the medical community. For example, in working with the disabled, where reinforcing the patient's medical compliance is significantly important, the "affective-passivity" behavior



model, where the physician is objective and emotionally detached, may be in order. However, as novel and sometimes unorthodox interventions become prominent, and the team approach to geriatric health care becomes the rule rather than the exception, the question of the doctor-patient relationship may be moot.

In brief, the following five major themes emerged during this research study about the health and social processes of older Americans:

- (1) Most older Americans are concerned about the possibility of a catastrophic illness where the health care cost could diminish or wipe out their savings, investment-producing income, retirement pension, and social security benefits. Medicare pays for only part of the medical expenses for older persons, and that part has often comprised consistent increases in deductibles and co-payments, decreases in service allowables, non-coverage for most of the services that accommodate the ailments of chronic conditions; and lesser reimbursement rates for physician geriatric services. Hence, the present health care financing system for older Americans is inappropriately based on the traditional medical paradigm. That is, it is based on acute, short-term cure, and the expediency of care.

- (2) It is still acceptable among most health professionals and older persons, particularly older men, that older persons either rely on medical treatment to cure their aches and pains or accept the fate of aches and pains because they are "just getting old." The benefits of proper diet, exercise, and social interaction for healthy, active, and functionally independent older Americans are either overlooked or ignored.
- (3) Older persons are still persuaded to leave the labor force at or around age 65 despite the elimination of mandatory retirement for most jobs. The labor force also ignores the fact that they are in better health and are functionally independence.
- (4) Contemporary older persons are at risk for successful aging. Although the population of older Americans is increasing with the majority of them residing independently in communities, the physicians with systematic training, clinical knowledge, and comprehensive geriatric assessment techniques are few in number when compared to the growing population of older Americans, and they practice geriatric medicine almost exclusively in institutionalized settings or in affiliate clinics of those settings. Hence, older Americans, most of whom visit the doctors' offices for health care

services in their communities, have their health complaints dismissed as a function of aging, and are not receiving the highest quality of care for successful aging.

Furthermore, since the American Medical Association reported that as recently as 1991 only 13 of the 126 accredited American medical schools require separate courses or a clinical rotation in geriatrics, chances are great that there will be a shortage of geriatricians to treat older persons in the twenty-first century, leaving twenty-first century older Americans further at risk for successful aging.

- (5) Practices, programs, and services for older Americans are out-of-date, fragmented, and not easily accessible to older Americans. The focus group research strategic planners in this study built a comprehensive community health and social network to correct the disparity in geriatric practices, programs, and services for older Americans. They placed geriatric practices, programs, and services in networks in the communities, and stocked them with wellness programs, disease prevention programs, restorative and rehabilitations services, nutritional programs, psychosocial services, recreational services, job

placement and volunteer opportunities, social interactive activities, and an intergenerational program whose goal is to help eradicate myths and misconceptions about aging and the aging process.

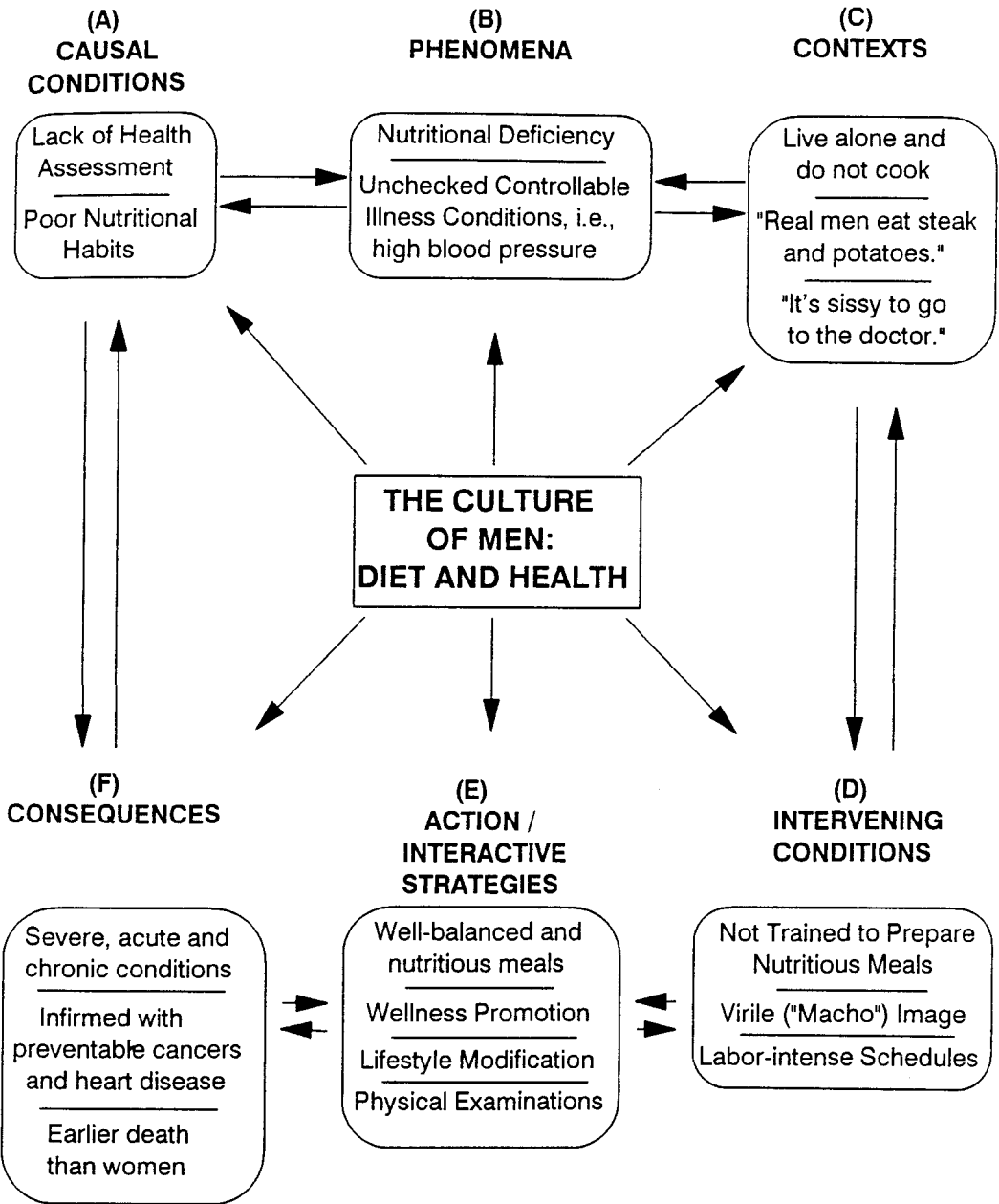
In summary, the results of this research study indicated that healthy, active, and functionally independent older Americans are at risk for successful aging in the twenty-first century. The results indicated it could be due to the American culture which clings to attitudes, behaviors, and misconceptions about aging that impact the health and social status of older Americans, and hence, their overall quality of life. Our misplaced values about older Americans' place in society affect the health and social processes in which they interact, the policies, practices, programs, and services which they must rely upon, and their own attitudes and behaviors about themselves.

Findings in this study related to the foundation of theory that was reviewed in Chapter II. They were driven by the methodologies described in Chapter III which link theory to practice. They evolved in practice with sensitivity to the paradigm model of Strauss and Corbin (1990) which links:

(A) CAUSAL CONDITIONS -> (B) PHENOMENON(a) -> (C)  
 CONTEXT -> (D) INTERVENING CONDITIONS -> (E)  
 ACTION/INTERACTION STRATEGIES -> (F) CONSEQUENCES.

A highly simplified paradigm model is demonstrated in Figure 16, which shows a dimension of the culture of men.

Figure 16



Ultimately, the findings in this study emerged into grounded theory from researching the actions and interactional sequences within the health and social processes of older Americans that evolved over time. Strauss and Corbin argue:

This comes from collecting data and asking questions about that data, making comparisons, thinking about what you see, making hypotheses, and developing small theoretical frameworks (miniframeworks) about concepts and their relationships. ...Often, one idea or insight sparks another, directing you to look more closely at the data, to give meaning to words that seemed previously not to have meaning, and to look for situations that might explain what is happening here. This increasing sensitivity to concepts, their meanings, and relationships is why it is so important to interweave data selection with data analysis. Each feeds into the other thereby increasing insight and recognition of the parameters of the evolving theory.  
(Strauss & Corbin, 1990, p. 43)

The results of the research study indicated that higher quality geriatric practices, programs, and services than currently exist must pervade the communities where healthy and active older Americans reside and function before successful aging can be realized in the twenty-first century.

### **Conclusion**

The question that guided this research was whether or not the prevailing geriatric practices, programs, and services in the United States contribute to or deter the successful aging of healthy, active, and functionally independent older Americans. Researching the health and social processes of members of this group, and the interactive groups that govern

their health status, could assist in predicting the health and social requirements necessary for successful aging in the twenty-first century.

Concerns about successful aging in the twenty-first century is particularly important to study at this time. By the year 2030, the population of healthy, active, and functionally independent older Americans is expected to double, and geriatric health and social practices, programs and services have not changed sufficiently to accommodate this population growth. Compounding this problem are endless new developments in life-extending high-technology medicine, unprecedented discoveries in genetic engineering and nutrition, and a commitment to the promotion of wellness behavior. These life-sustaining components are expected to shift the population of older Americans further away from the frail and infirmed to the functional and independent.

The advancements in science and technology are changing our conception of life. There are more older persons than there are teenagers. There are more older persons who are healthy, active, and functionally independent than there are frail, infirmed, and dependent. Older persons are no longer willing to be a burden on their children or to be burdened by their children. The average life expectancy continues to rise. And, even more surprising, gains are being witnessed in an increase in life span. These historical developments alone explode the myths and misconceptions that persons age 65 years

and over are frail, that they are useless, and that they have common attributes and characteristics.

Science and technology have changed the conceptions of life in America, but they have not changed the conceptions of society and its culture. The power of ageism, "that debased stereotyping of the elderly as poor, useless, and senile" (Callahan, 1987), still permeates our society. Moreover, the belief, and fear, that aging is a forerunner to death persist, although it has been well established that healthy and functionally independent older persons can maintain and enjoy most of their physical and mental abilities in later life, and even improve them in many ways.

For this dissertation research study, it can be concluded that although science and technology have triumphantly transformed aging and the capacity to preserve the quality of life, the social roles of healthy, active, and functionally independent older Americans are bound within a normative framework in which culture and group norms guide the health and social processes of their lives. For example:

- Older persons are not highly-valued in our society, and hence, research initiatives that have benefited their lives have only been a chance event.
- The functionality of healthy, robust, active, and independent older persons is often limited because their financial resources are reduced and diminishing; their self-esteem is often lowered



because their lifelong identity and socially interactive relationships, commonly associated with the world of work, are often relinquished because society has declared them unproductive.

- There are built in barriers in the doctor-patient relationships of healthy, active, and functionally independent older persons. The traditional health conformity, as defined by the culture of the medical schools, clinical training, and the fraternal organizations to which the doctors belong, has been to create a doctor-older patient relationship that is "activity-passivity." Activity-passivity is where the orientation is one in which the physician has medical authority to be active in providing treatment to combat the illness, and the older patient is passive in the interest of improving their health status. Although a "mutual participation" contractual model of doctor-patient relationship is practiced with most healthier acute care patients, this model appears to be consistently used for older Americans despite their better health and functionality, and ability to share in their own health care decisions.
- Finally, and importantly enlightening, older men neglect their health and social well-being because they are bound by the social roles dictated by

society which enforces: What is masculine and what is virile. Hence, what is and is not feminine.

Many of the stereotypic assumptions that have been associated with aging and the aging process have not distinguished between the healthier, active, and functionally independent older Americans and the frail. Although some studies have found that certain cognitive abilities (reasoning ability, spatial ability, and verbal and mental comprehension), and physical endurance (vision, hearing, lungs, heart and blood vessels, oral cavity, metabolism, kidney function, sexual function, postural control and gait) decline with progressing age, more recent studies have shown far less decline. Several studies have indicated that cells can be regenerated (Kotulak and Gorner, 1991), certain cancers can be prevented (Kotulak, 1992), and heart disease and diabetes can be controlled (Dwyer, 1991), regardless of age.

The following recommendations are presented, which are aimed at addressing some of these issues, and the issues that would elicit successful aging for older Americans in the twenty-first century. The recommendations highlight the gaps in our present system of health and social practices, programs, and services. They also present practical alternatives to the prevailing practices, programs, and services.

## Recommendations

Despite the burden of chronic illness and associated disabilities experienced by the aging in this society, the committee [Institute of Medicine Committee on Health Promotion and Disability Prevention] recognizes the great heterogeneity of this population and emphasizes that healthy aging is not an oxymoron. More important, the committee urges an expansion of elder care that looks beyond the primary prevention and cure model toward the maintenance or restoration of maximal functioning in the face of chronic illness. (Berg & Cassells, 1990, p. 18)

### Recommendations For Action

**Recommendation 1: Develop and implement nationwide community comprehensive health and social networks for older Americans.**

To advance wellness behavior, disability and disease prevention and control, and healthful socialization for the successful aging of older Americans in the twenty-first century, it is recommended that easily accessible community comprehensive health and social networks for older persons be developed and implemented throughout the nation. These networks should include: motivation for wellness and health and social services that are governed by specialty trained health and social professionals such as geriatricians, gerontological nurses, and geriatric social workers; rehabilitative and restorative services that are administered on an "as necessary" or fee-for-service basis by masseurs, physical therapists, podiatrists, acupuncturists, pharmacists, dentists, and other appropriate providers; nutrition services that are supervised by geriatric dietitians; psychosocial

services that are managed by providers of counselling and job and volunteer opportunities, and rendered on a part- or full-time basis as necessary; recreational activities that would include physical fitness programs, public library facilities, and social interactive activities; and some intergenerational programs and activities to promote human relations among the young and the old, and to silence many of the myths and misconceptions about aging and the aging process.

The networks could be developed, implemented, and financed through the combined efforts of government, health and social providers, and private sources. Continued financial subsidy could be provided through service fees from participating providers and older Americans. Metaphorically, the community networks would be an equivalent of the young women's and men's christian associations (YMCA and YWCA), whose goals are also to improve mental and physical health. The major difference is that this network also features medical and psychosocial services, and is secularly inclined.

**Recommendation 2: Establish national performance standards and surveillance system for community comprehensive health and social networks.**

It is recommended that national performance standards and a surveillance system for monitoring be established to help ensure that the network practices, programs, and services are broadly representative of the diversity among older Americans, whose characteristics comprise diversity in gender, ethnicity, education, and socioeconomic status. Establishment of

performance standards and a surveillance system would also ensure that the practices, programs, and services meet and continued to meet the needs of the older Americans for whom the practices, programs, and services were intended.

**Recommendation 3: Establish and implement a national marketing campaign for the nationwide community comprehensive health and social networks, to encourage and ensure involvement by both older men and women.**

To advance the goals of the networks and establish wellness behavior, disease prevention, and healthful socialization for the successful aging of both older men and women in the twenty-first century, it is recommended that the benefits of the health and social networks be advertised and promoted for their value in preserving a better overall quality of life for all healthy, active, and functionally independent older Americans.

**Recommendation 4: Conduct a longitudinal study on: (1) the culture of men in relationship to health status; (2) the health behavior of older men in relationship to their seeking preventive and therapeutic interventions for themselves; and, (3) men, nutrition, and disease in relationship to lifespan, in particular, older men who live alone.**

The mortality disparity between older men and women should no longer be an acceptable fact of life. It is recommended that a longitudinal study be conducted on the culture, behavior, attitude, health, and nutrition of men, without regard to age, socioeconomic status, and ethnicity, to establish if culture, behavior, and attitude affect the health and nutritional status of men in general, and older men in

specific. The research hypothesis: Is there a correlation between nutrition, wellness behavior, and preventive and therapeutic intervention and the mortality disparity between older men and women?

**Recommendation 5: Expand research and development on prevention and control of chronic diseases.**

It is recommended that research and development be expanded on the prevention and control of chronic diseases, so that solutions to healthful interventions for the successful aging of older persons are no longer a chance event but specifically directed.

**Recommendation 6: Research and develop recommended dietary allowances (RDAs) and ideal weight charts for persons aged 65 and over.**

It is recommended that recommended dietary allowances and ideal weight charts for persons aged 65 and over be researched and developed to assist in preventing nutritional deficiencies and obesity, both of which could exacerbate a multitude of health problems.

**Recommendation 7: Provide appropriate health and social practices, programs, and services for the healthy, active, and functionally independent older Americans with chronic conditions.**

It is recommended that the health and social practices, programs, and services for older Americans be updated, so that they will accommodate the social and chronic condition needs of the healthy, active, and functionally independent older persons. Pope and Tarlov argue,

Even among privately or publicly insured people with disabilities, access to needed services is often a problem. Coverage may be limited by an arbitrarily defined "medical necessity" requirement that does not permit reimbursement for many types of preventive and rehabilitative services and assistive technologies. Insurance policies tend to mirror the acute care orientation of the U.S. medical system and generally fail to recognize the importance and value of longitudinal care and of secondary and tertiary prevention in slowing, halting, or reversing deterioration in function. The presumption, which has never been thoroughly evaluated, is that rehabilitative and attendant services, assistive technology, and other components of longitudinal care are too costly or not cost-effective.

(Pope & Tarlov, 1991, p. 26-27)

**Recommendation 8: Restructure the Medicare program.**

It is recommended that the Medicare program be restructured to accommodate the needs of the older Americans today. That is, restructure the Medicare program so that it is no longer based on cure and the expedience of care, but accommodates the treatment, care, and prevention of long-term chronic conditions that impact the lives of the majority of older persons today.

**Recommendation 9: Expand geriatric medical education.**

It is recommended that geriatric medicine be included as a separate formal course in all 126 American accredited medical schools as a distinct part of the curricula, to advance physician understanding of the often vague and complex chronic conditions of older persons.

**Recommendation 10: Implement geriatric health and psychosocial training for the existing community family practitioners, internists, and allied specialty physicians.**

To circumvent the shortage of physicians trained to treat the often vague and complex chronic conditions of the rapidly expanding population of healthy, active, and functionally independent older persons, it is recommended that a cadre of geriatricians, gerontological nurses, and geriatric social workers conduct seminars and workshops to train community and allied specialty health professionals on how to provide geriatric care and treatment, and how to access effective geriatric health and psychosocial services. It is further recommended that a cadre of geriatric specialists be available for consultation on difficult geriatric patient cases. This access could possibly be achieved through the community comprehensive health and social networks that are recommended in this study.

**Recommendation 11: Provide training for older Americans on the benefits of taking responsibility for their own health, illness control, and disability prevention.**

Older Americans often leave the responsibility for their health to the health care providers. To change this behavior, it is recommended that older Americans be trained in wellness behavior, lifestyle modifications, illness control, and disability prevention. This training could be provided within the framework of the nationwide community comprehensive health and social networks that are recommended in this study.



**Recommendation 12:** Educate the health and social providers, older persons, and society on the physiological, functional, and psychosocial effects of aging and the aging process, in order to dispell many of the myths and misconceptions about healthy, active, and functionally independent older Americans.

### Recommendation For Future Study

This research study indicated that disease, disability, and mortality in one's later life may be linked to culture and behavior throughout one's life. Hence, in addition to the recommendations presented above for successful aging in the twenty-first century, a research study of healthy, active, and functionally independent older persons from across the country would be useful to compare with the results of this study.

While depression as a separate variable was not discussed in this study in relationship to successful aging of twenty-first century healthy, active, and functionally independent older Americans, it was shown to intersect consequentially with several of the study's variables. It is therefore recommended that a research study be conducted on depression as a variable that may affect the successful aging of twenty-first century older Americans.

Finally, one finding in this research study alluded that female physicians may be more compassionate towards their older patients than their male counterparts. Hence, it is recommended that research be conducted to establish whether or not female physicians take the medical problems of older

persons more seriously than male physicians, and if so, is culture a factor.

The answers to these research questions, and questions like them would contribute greatly to the understanding of aging, the aging process, and our culture. They would help to answer some of the confronting physiological, psychosocial, behavioral, and policy issue questions in geriatrics, and challenge the perspectives, practices, programs, and services for successful aging in the twenty-first century.

### Discussion

These recommendations have been presented because, at the threshold of the twenty-first century, many healthy, active, and functionally independent older persons still dismiss their aches and pains in terms of "just getting old." Many doctors still dismiss older persons' physical complaints as an inevitable function of aging and do not pursue treatment. In addition, the American culture still clings to attitudes, behaviors, myths, and misconceptions about aging that impact the health and social status of older Americans, and hence, their overall quality of life.

As described and discussed throughout this dissertation, the implications of culture and behavior on the health and social processes of healthy, active, and functionally independent older Americans are of critical importance. Accordingly, the isolation of culture, behavior, and

psychosocial factors in this research study help to define the limitations of medicine in controlling and preventing many of the subtle and complex chronic conditions of these Americans.

Clearly, this researcher has not been in search of Methuselah for older Americans (Olshansky, Carnes, & Cassel, 1990), although recent advances in genetic engineering (Kotulak & Gorner, 1991; Gorner & Kotulak, 1991; Jarvik, 1991), life-extending technologies (Callahan, 1987; Fries, 1983; Hooyman & Kiyak, 1991; Jennings, Callahan, & Caplan, 1988; Leyerle, 1984; Schneider & Brody, 1983; Strauss, etal, 1987), and preventive disease behavior (Dwyer, 1991, Kotulak, 1992; Pope & Tarlov, 1991; American Cancer Society, 1992) are decreasing the morbidity modality. What is sought, however, is successful aging that could lead to many extended years of freedom from significant limitations in daily living, disability, dysfunction, frailty and dependence for older Americans.

It is acknowledged that health care for some older Americans involves the diagnostic, therapeutic, preventive, rehabilitative, and psychosocial regimen as a unit of treatment. However, for most others, it does not. If successful aging is to be achieved in the twenty-first century and beyond, illness prevention and restoration of function in older persons must extend beyond the traditional medical paradigm to include considerations for culture, behavior, and psychosocial factors for the majority of older Americans.

This dissertation study, as well as the recommendations included herein, are intended to support the successful aging of healthy, active, and functionally independent older Americans in the twenty-first century, whose population will be double that of today, and whose functionality may still be limited in subtle ways. Hopefully, this dissertation will be considered a model for assessing: what is known and still unknown about aging and the aging process; why it is important to assess the current perspectives, practices, programs, and services in light of the accelerating population growth of older Americans well into the twenty-first century; how the prevailing health and social practices, programs, and services would impact the twenty-first century's older Americans; which health and social practices, programs, and services, when coordinated, would facilitate successful aging; where these practices, programs, and services would best be located; and when they should be developed and implemented.

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## **APPENDICES**

**APPENDIX A**

## GLOSSARY

### Gerontological Terms

**Activities of Daily Living (ADLs):** A measure of abilities in functions such as bathing, dressing, toileting, transfer, continence, and feeding.

**Acute Care:** A level of nursing care available to hospital inpatients.

**Acute Diseases:** Those illnesses marked by rapid onset, definite crisis, and self-limiting aftermath. Usually they are brought on by exogenous factors which result in a traumatic course. The most frequent sufferers of acute illnesses are those in their first half of life.

**Acuity:** The ability to perceive small objects or details clearly.

**Adaptation:** The ability to make adjustments in life.

**Adult Day Care:** Health, recreation and social services provided to the elderly during the day at an elderly care center.

**Affective Disorders:** Most common psychogenic or functional disorders not involving physical malfunctioning. Affective disturbances found among older persons have usually existed for many years. They are marked by personality changes, alterations in normal mood states, lack of self-esteem and psychological turmoil. Reactive depressions and, less often, mania are the most frequent affective disorders observed among the elderly.

**Affective Psychoses:** Mental disturbances characterized by pronounced swings or changes in moods or emotions.

**Age Dependency Ratio:** A demographic measure of changing age composition in a particular population. Since it is based on an aggregation of those considered either too young or too old to contribute to their own financial or social well-being, the age dependency ratio indicates how many dependents every 100 working members of a group must support.

**Ageism:** Is a term used to describe how people in society react to older persons, aged 65 years and over. It can be seen as a process of systematic stereotyping of and discrimination against people because they are old, just as racism and sexism accomplish this with skin color and gender.

**Aging:** The process of growing older.

**Adjustment:** The process of adapting to internal or external change.

**Antisocial Behavior:** Actions that are contrary to established social standards of permitted behavior.

**Anxiety:** A persistent fear arising from sources that may or may not be known to the individual; characteristic of neurosis and arising in association with conflict, threat, or frustration.

**Attitude:** Predisposition to respond to persons, objects, situations, or values in a particular manner.

**Autoimmunity Theory:** A biological theory proposing a relationship between aging and the body's rejection of its own tissues.

**Behavior Disorder:** Abnormal patterns of adjustment characterized by actions contrary to established and accepted social values, morals, and norms.

**Biological Aging:** Anatomical and physiological age-related changes that occur over time.

**Cancer:** Malignant disease characterized by uncontrolled cell multiplication causing growths of abnormal tissue (tumors) **Chronic Disease:** A systematic disruption in internal bodily functioning that is slow in its progress, of long continuance, and often resistance to cure.

**Case Management:** Needs assessment and coordination of services for older persons.

**Chronic Condition:** Lacking in specifiabile etiology, chronic conditions involve endogenous systemic disruptions which do not run a short-term course. They are most often resistant to cure and may be one or multiple in number. It is also defined as a condition that lasts for a substantial period of time, or has sequelae that are debilitating for a long period of time.

- Chronological Aging:** Growing older in terms of temporal units such as days, months, and years.
- Cognitive:** Intellectual and mental experiences and processes.
- Collagen Theory:** Based upon established relationships between collagen -- the fibrous protein found in muscles, joints, bones, cartilage, ligaments, and vessels, and age-related change.
- Conformity:** Behavior that is in accordance with established social norms.
- Congregate Meals:** Nutritious meals in a group setting to promote better health and reduce social isolation.
- Continuing Care:** Institutional care of people that expect not to return to outside living arrangements. Also known as extended care.
- Coping:** Dealing with problems and difficulties by adopting specific behaviors and orientations.
- Coronary Arteries:** The blood vessels that carry blood rich in oxygen and nutrients to the heart. When the coronary arteries become narrowed with atherosclerosis, angina pectoris, and heart attack can occur.
- Culture:** The total way of life of a people. The social legacy the individual acquires from his group. The core of any culture consisting of those values and ideal-patterns widely regarded as obligatory.
- Demographic:** Statistical data relating to aspects of the population. The classification variables are usually age, sex, marital status, race, ethnic origin, education, occupation, income, religion, and residence.
- Depression (Psychotic):** An affective disturbance involving pronounced feelings of hopelessness, sadness, despair, and apathy.
- Diabetes:** A chronic disease that affects the body's use of carbohydrates and fats. People with diabetes often have abnormal blood cholesterol values.
- Diagnosis Related Group (DRG):** A classification system that suggests a plan of treatment, payment amount, and length of hospital stay for different illnesses and injuries.

**Drug Misuse:** Defined as overuse, underuse, erratic use, or contraindicated use. These uses are not mutually exclusive, and include misuse which may be attributable to both the patient and the physician.

**Endogenous:** Developing or originating within the body, or arising from causes within the body.

**Etiology:** The cause(s) or origin of a disease.

**Exoteric:** Outside or societal influences.

**Exogenous:** Developing or originating outside the body.

**Explanation:** Applying an objective standard to a phenomena or situation.

**Functional Age:** Changes in behaviors and abilities associated with the passage of time.

**Functional Disorders:** Psychological disturbances occurring in the absence of any detectable physiological or organic cause.

**Gemeinschaft ( $G_1$ ):** A community (rural) of shared beliefs, values, and ideals.

**Geriatrics:** The total medical science that deals with the diseases, debilities, and care of older persons. It is also the study of the physiological and psychosocial processes of aging.

**Gerontology:** The branch of science that deals with aging, and the special problems of aged persons.

**Gesellschaft ( $G_2$ ):** An impersonal society (urban) requiring strict codification of rules. Trust cannot be assumed. This reflects our current situation of a generalized cultural suspiciousness where it may be hard to find a doctor with whom you have a personal relationship over a period of time, and whose trust you can assume.

**Health:** The medical model defines health as the absence of disease and seeks to improve health by understanding and eradicating disease. The World Health Organization defines health as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

**Healthy:** Referred to in this study as a health status of good physical mobility, mental alertness, and efficient vision



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**High Density Lipoprotein (HDL):** This is the "good" fraction (blood lipids) of cholesterol that removes cholesterol and the low density lipoproteins (LDL) from the blood. HDL carries cholesterol and LDL to the liver where it is broken down and excreted from the body.

**Holistic:** A system of preventive medicine that takes into account the whole individual, his own responsibility for his well-being and the total influences -- social, psychological, societal -- that affect health, including nutrition, exercise, and self-perception and adaptation.

**Home Delivered Meals:** Meals delivered to the home for individuals who are unable to prepare meals for themselves.

**Home Health:** A coordinated program that provides health and social services to patients in their own place of residence.

**Hypertension:** High blood pressure.

**Hypothesis:** Implies a possible course of action with a prediction of the outcome if the course of action is followed.

**Iatrogenesis:** A decrease in the patient's health as a result of contact with the health care system.

**Illness:** Characterized as some imputed generalized disturbance of the capacity of the individual to function normally as expected.

**Immobility:** The state of being immobile.

**Immune Deficiency:** Not being resistant to disease because of the lack of the formation of humoral antibodies or the development of cellular immunity, or both, or as a result of some other mechanism, as interferon activity in viral infections.

**Impairment:** Diminishing, weakening, or damaging of, for example, vision or hearing.

**Impoverishment:** Deprivation of money, goods, and services, leading to a substandard quality of life.

**Inanition:** Malnutrition.

**Incoherency:** A lack of logical connection where things are disjointed for the person.

**Incontinence:** Inability to control excretory functions, as defecation or urination.

**Infection:** An invasion to body tissues or where there is cellular injury. It can be transient or prolonged.

**Information and Referral:** Information about available services, and the available resources to provide the services.

**Insomnia:** Inability to sleep, or sleeplessness.

**Instability:** A lack of strength, either mental or physical.

**Institutionalization:** Confinement to an established facility, such as a hospital, nursing home, etc.

**Instrumental Activities of Daily (IADLs):** Concerned with complex tasks such as shopping, cooking, housekeeping, laundry, use of transportation, managing money, managing medications, and use of telephones.

**Intellectual Impairment:** The lack of an ability to comprehend or understand.

**Intelligence:** A complex hypothetical mental ability defined in terms of performance.

**Intelligence Quotient (IQ):** A numeric representation of intelligence based upon measures of selected behavioral samples;  $\text{mental age/chronological age} \times 100 = \text{IQ}$ .

**Isolation:** A separation from contact with others, or contradictory attitudes and behavior with others.

**Leisure:** Free or spare time. A period of retirement.

**Life Expectancy:** The average length of time an individual born at a particular point in history can reasonably expect to live.

**Life Span:** Age at which the average person would die if there were no premature disease or accidents. In 1991, the U.S. Census Bureau documented survival to between 110 and 115 years.

**Living Arrangement:** The situation in which the person functions and dwells.

**Long Term Care:** Health and personal care services provided on a long-term basis for persons who are ill, aged, disabled or retarded--either in an institution or within a person's home.

**Low Density Lipoprotein (LDL):** LDL is referred to as the "bad" fraction of cholesterol. It is deposited in the walls of arteries and is associated with atherosclerosis.

**Medicare:** The Medicare Program is designed to provide medical care for older persons and the disabled. The Basic Hospital Insurance Plan (Part A) is designed to provide basic protection against hospital costs and related post-hospital services. Part A is financed jointly by employers and employees through Social Security payroll deductions. Qualified persons 65 years and over who are not otherwise eligible for Part A benefits may pay premiums directly to obtain this coverage. The Medical Insurance Plan (Part B) is a voluntary plan which builds upon the hospital insurance protection provided by the basic plan. It provides insurance protection covering physicians' and surgeons' services received either in hospitals or on an ambulatory basis. It is financed through monthly premium payments by each enrollee, and subsidized by Federal general revenue funds.

**Medicaid:** The Medicaid Program is designed to furnish medical assistance on behalf of needy families with dependent children, and of aged, blind, or permanently and totally disabled individuals whose incomes and resources are insufficient to meet the costs of necessary medical services. The program is administered by State agencies through grants from the Health Care Financing Administration of the Department of Health and Human Services.

**Medigap:** A generic term that covers policies written to compensate for items not covered under Medicare.

**Metabolic Waste Theory:** Proposes a relationship between aging and the accumulation of injurious metabolic waste products in the human body.

**Morbidity:** A departure from a state of complete physical or mental well-being resulting from disease or injury. Morbidity includes not only active or progressive disease but also impairment, that is, chronic or permanent defects that are static in nature, resulting from disease, injury, or congenital malformations.

**Mutation Theory:** Poses a relationship between aging and the abnormal or atypical dividing of body cells.

**Myth:** A traditional or legendary story, usually concerning some alleged person or event, with or without a determinable basis of fact or a natural explanation.

**Non-Compliance:** Defined as the failure of the patient to follow drug regimen prescribed by the physician.

**Normal Aging:** Changes that occur as natural results of the passage of time.

**Norms:** Guidelines for acceptable or normal behavior.

**Nuclear Family:** The conjugal family composed of parents and children living under one roof. Assumed to be the predominant form of family life today, as compared to the extended family in the past in which the conjugal family plus blood relatives from two or more generations live under one roof. Modified extended families are still in evidence where two or more generations live in close proximity and maintain close contact, but not under one roof.

**Nursing Homes:** Includes a wide range of institutions that provide various levels of health, maintenance and personal care to persons unable to care for themselves, and who may have health problems that range from minimal to very serious. Nursing homes include skilled nursing facilities, intermediate care facilities and extended care facilities, but do not include boarding homes.

**Old Age:** Defined operationally as 65 years and over. However, old age in the 1990s is being defined as 85 years and over.

**Organic Disorders:** Psychological disturbances resulting from physiological change.

**Pathology:** Cognizance of abnormal conditions as related to the human body, that may lead to deviation from a healthy, normal, or efficient condition.

- personal Care:** Services include housekeeping, homemaking, and personal grooming.
- physical Therapy:** Rehabilitative therapy provided by a qualified therapist.
- prospective Payment System:** A method of reimbursement whereby estimated or budgeted costs are determined before the start of the year and these costs are the basis for reimbursement to the hospital for services provided to third-party beneficiaries.
- psychosocial:** Pertaining to or involving both the psychic and social aspects of a person's reality.
- psychosomatic Disorders:** Identifiable disease, illness, or physiological damage resulting from psychological rather than physiological causes.
- Respite Care:** Provision of relief to a caregiver from the constant care of an impaired individual over the age of 60. In-home services provided may include sitter/companion, home health, skilled nursing care, homemaker, or chore services.
- Retirement:** Withdrawal from formal and remunerative employment, mandatory or voluntary.
- Retirement Center:** Arrangements wherein safe, hygienic, sheltered living is provided to older adults not capable of or desiring fully independent living. A broad range of services are provided, ranging from housing and nursing care to social and personal services.
- Role Activity Theory:** Poses a relationship between aging and maintenance of social roles.
- Self-Concept (self-identity):** How a person views, values, and appraises self in relation to others and the environment.
- Self-Esteem:** Feelings of worth, value, and regard in reference to self.
- Senescence:** Aging accompanied by a decline in bodily faculties, sensibilities and energies.
- Senility:** Characteristics of old age, in particular, referring to a decline of the mental faculties. Skilled

- skilled Nursing Facility (SNF):** An institution that provides medical and continuous nursing care services to non-acute patients who require a professional medical staff to render full-time medical care and convalescent, rehabilitative and restorative services. SNF's usually have a transfer agreement with one or more hospitals.
- social Aging:** Age-related changes resulting from social forces and the individual's or group's responses to socially imposed factors.
- social Isolation:** The absence of social interaction, contacts, and relationships with family, friends, neighbors, and significant other on an individual level, and with society-at-large on a broader level.
- social Norms:** Social standards of appropriate or normal behavior.
- social Reality:** Engenders reality in which human action and behavior occur.
- social Roles:** Patterns of activity and customary functions intrinsic to a particular position; as student, mother, boss.
- social Status:** Relative position within the social structure entailing certain rights, privileges, duties, and responsibilities.
- social Support:** The resources provided by other persons.
- society:** A defined organization of people and institutions.
- Sociology:** A study of society. It is a study of social factors such as values, norms, roles, social structures, institutions, stratification, subcultures, and the like. Social gerontologists study these social factors as they impinge on older persons or reflect the status or position of older persons.
- Structural Functionalism:** Derives meaning from the perspective that the social institutions, and basic practices and norms of society are necessary for the continuation and survival of society.
- Successful Aging:** The attainment of 65 years and over with a status of good health as characterized by a person's ability to be functionally independent and active, and satisfaction with the social processes that influence and guide the life of an older person.

**Theory:** Refers to a verified or established explanation accounting for known facts or phenomena.

**Transportation:** Provision of localized transportation service.

**Truth:** Conformity with fact or reality. It may be the ideal or fundamental reality set apart from and transcending perceived experience. "While 'truth' is conventionally believed to be 'singular,' it cannot always be so conceived in the human sciences because the 'correspondence' of fact with 'reality' is a function of both the methods of explanation and the definitions we use for that which needs to be explained" (S. I. Miller, 1989).

**Wear and Tear Theory:** Views human aging as analogous to the aging and deterioration of a machine as a result of use.

**Well-being:** Feelings of good physical and mental health.

### Qualitative-Quantitative Research Terms

**A Priori:** Valid or self-evident independent of observation or experience.

**Anomie:** A deviation from the norm.

**Attitudinal Questions:** Questions which give rise to many specific "opinions" and refer to a general orientation or way of thinking. The term "belief" is often applied to statements that have a strong normative component, particularly those having to do with obligation or with moral or "proper" behavior.

**Behavior Questions:** Questions that ask about behavior or "facts." Examples are characteristics of people, things people have done, or things that have happened to them that are in principle verifiable by an external observer.

**Bias:** The difference between the value reported and the true value. Sample bias results from the omission or the unequal selection of members of the population without appropriate weighting. Response bias for behavioral reports is the difference between what the respondent reports and the respondent's actual behavior.

**Cluster Sampling:** The unit of sampling is not the individual but rather a naturally occurring group of individuals.

**Coding:** Shorthand devices to label, separate, compile, and organize data. Codes range from simple, concrete, and topical categories to more general, abstract conceptual categories for an emerging theory.

**category:** A distinction that is central to the integraton of the theory.

**Comparison Analysis:** An inductive strategy used by sociologists and anthropologists to study comparison of several groups in social processes to develop concepts, and a coding paradigm is used to systematically categorize these social processes in order to uncover their characteristics, relationships, and interrelationships. It can also be used to study social units of any size, for example, individuals, roles, groups, practices, programs, services, institutions, or nations.

**Conceptual Density:** The multiplicity of categories and properties and their relationships.

**Constant Comparative Method:** Categories elicited from the data are constantly compared with data obtained earlier so that commonalities and variations can be determined. The constant comparative method can be described in four stages: (1) comparing incidents applicable to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory (Glaser, 1964).

**Cross-Sectional Study:** A study that involves a broad sampling of persons of different ages, educational and income levels, races, religions, and so on, at a single point in time.

**Data Collection:** The finding and gathering or generating of materials that the researcher will then analyze.

**Deductive Reasoning:** Refers to the drawing of implications from hypotheses or larger systems of them for purposes of verification, and is referred to as quantitative research.

**Deductive Research:** Consists of the drawing of implications from hypotheses or larger systems of them for purposes of verification.

**Demographic Characteristics:** The basic classification variables that characterize an individual, such as sex, age, marital status, race, ethnic origin, education, occupation, income, religion, and residence.



**Empirical:** Probable or verifiable by experience or experiment.

**Epistemology:** The nature of knowledge and theories of teaching and learning. Coming to know something.

**Ethnographic:** A scientific description of individual cultures.

**Experimental Data:** Data drawn from research and/or literature.

**Grounded Theory:** An integration of the conditions, contingencies, contexts, consequences, and strategies around one or two core variables which are rich in conceptual detail and adequate to develop testable hypotheses. It is theory that is discovered or generated from data. Grounded theory is developed by: (1) entering the field work phase without a hypothesis; (2) describing what happens; and (3) formulating explanations as to why it happens on the basis of observation. (Glaser and Strauss, 1967)

**Hypotheses:** A provisional answer to a question about conceptual relationships.

**Inductive Reasoning:** Refers to developing concepts, insights, and understanding of individual or group behavioral patterns in the context of their past and the situations in which they find themselves. A necessary condition for understanding their behavioral patterns is in-depth familiarity with their social world (realities). It is also broadly known as qualitative research.

**Inductive Research:** Refers to the actions that lead to discovery of an hypotheses--that is, having a hunch or an idea, then converting it into an hypotheses and assessing whether it might provisionally work as at least a partial condition for a type of event, act, relationship, strategy, etc.

**Matrix Display:** Matrix construction is a systematic comparison method to further understand the substance and meaning of data.

**Memoing:** Memos are written elaborations of ideas about the data and the coded categories. Memos connect the initial analytic framework that coding provides with the polished ideas developed in the finished draft to integrate theory.

**paradigm:** A world view, where one set of basic universally recognizable principles (agreements) guide or dictate methods or practices. Paradigms tell the practitioner what is "important," "legitimate," and "reasonable."

**prediction:** An assertion about a state of nature, frequently stated in terms of the objective to be accomplished.

**Qualitative Methodology:** Refers to those research strategies that are concerned with understanding human beings in all of their complexities, and the nature of their transactions with themselves and with their surroundings.

**quantitative Methodology:** Refers to the drawing of implications from hypotheses for purposes of verification.

**Random Sample:** One in which each sample element has a known and equal probability of selection, and the number of elements in the sample have a known and equal probability of being the sample actually selected. It is drawn by a random procedure from a sample "frame," which is a list containing an exclusive and exhaustive enumeration of all sample elements (Green and Tull, 1978).

**Rule:** A prescribed method, principle, or regulation governing conduct, action, procedure, or arrangement.

**Sampling:** A technique used to study uniformities or "patterns." It involves selecting a given number of persons from a defined population as representative of that population. Sampling allows a researcher to reach valid conclusions about an entire population by studying only a small sample drawn from that population.

**Sorting:** A method of putting codes or memos together in order to clarify dimensions and to distinguish other categories.

**Survey Research:** A method for collecting and analyzing social data by way of highly structured and often very detailed interviews or questionnaires in order to obtain information from large numbers of respondents presumed to be representative of a specific population.

**Theory:** A coherent group of general propositions used as principles of explanation for a class of phenomena.

**Theoretical Sampling:** Sampling that is part of the progressive stages of analysis and is aimed toward the development of emerging theory. It provides a means to check out hunches and raise specific questions, as well as check the scope and depth of a category.

**Triangulation:** A multiple source research technique, used to corroborate, contrast, and causally link information to determine whether, in fact, the results are conceptually and logically reliable.

**Validity:** Measures if the question, argument, authority, etc., has a solid foundation of "truth" or right, and free from defects or errors in reasoning.

**APPENDIX B**

**TOPIC GUIDE FOR OLDER AMERICANS INTERVIEWING****INTERVIEW GUIDE FOR OLDER AMERICANS**

## 1. Personal history.

(Age, sex, marital status, If widowed-how long, children, living arrangement, education, financial status, job status-then and now, religious affiliation, group affiliation, etc.)

## 2. Typical day.

(Active or inactive, hobbies or not, family/friend relationship or not, plant or pet, homebound, read newspaper, magazine, or journal, watch television news, etc. -- to elicit social/behavioral perspective that could frame thoughts with regard to isolation, depression, loneliness, and health status, treatment, and services, etc.)

## 3. Social status.

(Socio-economic status as related to job or class status; Status in community; Church; With friends, family; etc.)

## 4. Resources.

(Financial, emotional networks to satisfy the need for caring, medical, etc.).

## 5. Health status.

(Self-appraisal and viewpoint of doctor's appraisal.)

## 6. Understanding of wellness, illness, ailments, or symptoms with respect to older people in America today.

(To uncover their own myths about what it is to be old in America today.)

7. Illness and disease labelling.

(Heart disease, cancer, strokes, and arthritis are irreversible diseases in older people; Older people with heart disease should not be active; Depression is a mental disorder that must be controlled with medication.)

8. Institutionalization labelling.

(ie. People in nursing homes are frail; people in retirement centers are old, isolated from mainstream society, and inactive; hospitals are for when you are sick; Senior centers are comprised of a lot of old people who get together and discuss their ailments.)

9. Physician labelling.

(Most doctors aren't interested in treating older patients; Most doctors give older patients an aspirin and a diagnosis that "there's nothing wrong with you, you're just getting old"; Geriatricians are high-priced doctors who treat rich old people; I trust my family doctor with all my health problems because he knows my medical history better than anyone else -- therefore, no second opinion is needed.)

10. Views of own patient-doctor relationship.

11. Views of older patient-doctor relationships in general.

12. Views of the future.

(If you could change the older patient-doctor relationship, what would it be like.)

**OPEN-ENDED QUESTIONS**

- How do you feel about your life presently? That is, how do you feel about your (a) health status; (b) economic status; (c) social networks (relations with friends, groups, community, etc.); (d) living arrangements, and (e) emotional support system (relations with family, friends, and significant others.)?

- Do you feel that your overall health care needs are being met? (If not, then why do you feel they are not being met?)
- Tell me about your relationship with your doctor(s). For example, when you describe your symptoms or ailments to your doctor, what kind of response do you get?
- What things do you like or dislike about your doctor?
- Do you feel that your relationship with your doctor, or lack of relationship with a doctor, affects any other part of your life?
- Would you go out more often if you thought medical treatment were available in case of an emergency (For example, in senior centers, shopping malls, or large department stores)?
- When you are at the doctor's office, how would you feel about first sitting down with a gerontology nurse to discuss your health problems as you now do with your doctor, and then when you see the doctor, your doctor (he/she) would have a better idea of your health problems?
- If you could tell your doctor about how they should treat older patients, what would you say to him/her?
- Speaking personally, what are some of your own views about older people in America?
- Tell me how you feel about people living so much longer today, that is, to ages 85 to 90 and beyond?
- If you could change one thing about your health status, what would it be?

**APPENDIX C**



**TOPIC GUIDE FOR INTERVIEWING  
INTERNISTS, FAMILY PRACTITIONERS, AND GERIATRICIANS**

**INTERVIEW GUIDE FOR PHYSICIANS**

1. Personal history.

(Certification specialty(s) and year(s) of certification; Type of practice; Size of practice where the majority of older patients are seen, ie, full-time practice, HMO, PPO, medical group practice, type of clinic, etc; Percent of older patients; Hospital affiliation; Teaching hospital affiliation; Teach or not.)

2. Typical day.  
(When seeing older patients.)

3. Older patient illness and disease labelling.

- A. In older patients, most chronic diseases like heart disease, cancer, and stroke are degenerative and are not stabilized or reversed with changes in lifestyle and diet;
- B. Activities of daily living (ADL) start to decrease at age 65, therefore, older patients' inactivity is expected and not discouraged;
- C. Recent medical advances have prolonged life but have not restored health;
- D. Antisocial personality disorders and cognitive impairment are common among persons 65 and older, and it should be treated medically to control it;
- E. Loss of coordination and sensory perception, ie, vision, etc., just come with old age, and older people all too often think its their medication.

4. Older patient labelling.
  - A. Old age begins at age 65;
  - B. Older people are in poor health;
  - C. Most older people are poor;
  - D. Older people are similar to one another;
  - E. Tomorrow's older patients will be similar to today's older patients;
  - F. Aches and pains are to be expected with old age.
5. View of relationship between medical, social, and behavioral status of illness and treatment for older patients.
6. View of own older patient/doctor relationships.
7. View of older patient-doctor relationships in general.
8. View of the future for older people and older patients.

#### OPEN-ENDED QUESTIONS

- Do you consider yourself a geriatrician because you were professionally trained in the field, or because you have a large population of geriatric (age 65+) patients, or both?
- What is the age range of your geriatric patients?
- In the last 5 years, has your overall patient load increased or decreased? Has the age mean, median, or range increased or decreased? Note: If there is a change, ask what he/she thinks is the reason for the change.
- Tell me what you think about the health care services for older persons in America today?

- Tell me what you think about the health status of older persons in America today?
- What are your views about the average medical complaints of your geriatric patients?
- How often do you prescribe medication for your geriatric patients for symptoms related to feelings of depression, isolation, and loneliness? You may discuss them separately if you feel it is appropriate. Note: If the doctor treats other than by medication, ask what treatment is prescribed.
- Do you think you spend about the same amount of time with your geriatric patients as you do with your other patients?  
  
If yes or not, then why?
- If time is a factor when you see geriatric patients, how would you feel about first having the patient discuss his/her overall health status with a trained gerontological nurse, and then have a summarized analysis and history of the patient's health status which you and the patient could discuss in detail before you make a diagnosis for treatment?
- How would you feel about having a geriatric social work see the older patient first to get the history of the patient's health status?
- Tell me how you feel about people living so much longer today, that is, to ages 85 to 90 and beyond?
- Do you think the healthier aging explosion has affected your medical practice? If yes, then how?
- What do you feel are the major problems facing medicine today, and into the future?

**APPENDIX D**

## TOPIC GUIDE FOR GERONTOLOGY NURSES

### INTERVIEW GUIDE FOR NURSES

#### 1. Personal history.

(Certification specialty(s) and year(s) of certification;

Years as a nurse \_\_\_\_\_. Years as a gerontology nurse \_\_\_\_\_.

Type of gerontology nursing practice:

Private hospital, bed size \_\_\_\_\_, % older patients \_\_\_\_\_;

Teaching hospital, bed size \_\_\_\_\_, % older patients \_\_\_\_\_;

HMO, % older patients \_\_\_\_\_;

PPO, % older patients \_\_\_\_\_;

Medical group practice, % older patients \_\_\_\_\_;

Hospital geriatric clinic, % older patients \_\_\_\_\_;

Other \_\_\_\_\_, % older patients \_\_\_\_\_.

Full-time or part-time gerontology nurse.

% Practice \_\_\_\_\_; % Teaching \_\_\_\_\_.

#### 2. Describe your typical day.

#### 3. Older patient illness and disease labelling.

A. What effect, if any, does lifestyle, activities of daily living (ADL), and diet have on the health of older patients, ie., on chronic diseases like heart disease, cancer, stroke, arthritis, etc.

B. How do you feel about these statement:

1. Recent medical advances have prolonged life but have not restored health;

2. Antisocial personality disorders and cognitive impairment are common among persons 65 and older, and it should be treated medically to control it;

3. Loss of coordination and sensory perception, ie, vision, etc., just come with old age, and older people all too often think its their medication.
  4. Old age begins at age 65;
  5. Older people are in poor health;
  6. Most older people are poor;
  7. Older people are similar to one another;
  8. In terms of medicine and health, tomorrow's older patients will be similar to today's older patients;
  9. Aches and pains are to be expected with old age.
- 
4. Do you feel that nurses should get involved in the social and behavioral diagnosis of older patients as well as the medical diagnosis? Do you see any relationship between them? If yes, give me your perspective.
  5. What is your view of the older patient/doctor relationships.
  6. Describe your typical relationship with older patients.
  7. What is your view of the future for older people.
  8. Do you consider yourself a gerontology nurse because you were professionally trained in the field, or because your patient population is largely geriatric (age 65+) or both?
  9. What is the age range of the geriatric patients? \_\_\_\_\_.
  10. In the last 5 years, has the overall patient load increased or decreased? Has the average older patient's age increased or decreased? Note: If there is a change, what do you think is the reason for the change?

11. Tell me what you think about the health care services for older people in America today?
12. Tell me what you think about the health status of older people in America today?
13. What are your views about the average medical complaints of the geriatric patients?
14. What percentage of the geriatric patients do you usually refer to doctors \_\_\_\_\_. For what causes?
15. What percentage of the referrals do you think do not go on to see a doctor \_\_\_\_\_. Why do you think they don't?
16. What percentage do you feel you treat yourself \_\_\_\_\_. Explain.
17. What percentage of the geriatric ailments and symptoms do you feel that a gerontology nurse could successfully treat without the need of a doctor \_\_\_\_\_. Why?
18. Do you spend about the same amount of time with your geriatric patients as you think you would with other patients? If yes or not, then why?
19. How would you feel about taking the medical history and doing the overall medical work-up on the geriatric patient before the family practitioner, internist, or geriatrician saw the patient, perhaps at times eliminating the need for the doctor to actually see the patient?
20. Tell me how you feel about people living so much longer today, that is, to ages 85 to 90 and beyond?
21. What do you feel are the major problems facing medicine today, and into the future?
22. Do you feel that an older patient is more comfortable with a nurse than a doctor, and if so why?

**APPENDIX E**



## TOPIC GUIDE FOR GERIATRIC SOCIAL WORKERS

### INTERVIEW GUIDE FOR GERIATRIC SOCIAL WORKERS

#### 1. Personal history.

(Certification specialty(s) and year(s) of certification;

Years as a social worker\_\_\_\_. Years as a geriatric social worker\_\_\_\_\_.

Where do you practice:

Private hospital, bed size\_\_\_\_, % older patients\_\_\_\_\_;

Teaching hospital, bed size\_\_\_\_, % older patients\_\_\_\_\_;

Medical group practice, % older patients\_\_\_\_\_;

Hospital geriatric clinic, % older patients\_\_\_\_\_;

Other\_\_\_\_\_, % older patients\_\_\_\_\_.

Full-time or part-time geriatric social worker\_\_\_\_\_.

#### 2. Describe a typical situation with an older patient and his or her family or significant other.

#### 3. Older patient illness and disease labelling.

A. What effect, if any, does lifestyle, activities of daily living (ADL), and diet have on the health of older patients, ie., on chronic diseases like heart disease, cancer, stroke, arthritis, etc.

B. How do you feel about these statement:

1. Recent medical advances have prolonged life but have not restored health;

2. Antisocial personality disorders and cognitive impairment are common among persons 65 and older, and it should be treated medically to control it;

3. Loss of coordination and sensory perception, ie, vision, etc., just come with old age, and older people all too often think its their medication.

4. Old age begins at age 65;
  5. Older people are in poor health;
  6. Most older people are poor;
  7. Older people are similar to one another;
  8. In terms of medicine and health, tomorrow's older patients will be similar to today's older patients;
  9. Aches and pains are to be expected with old age.
- 
4. Do you feel that social workers should get involved in the social and behavioral diagnosis of older patients? If yes, give me your perspective.
  5. What is your view of the older patient/doctor relationships.
  6. Describe your typical relationship with older patients.
  7. What is your view of the future for older persons.
  8. Do you consider yourself a geriatric social worker because you were professionally trained in the field, or because your client population is largely geriatric (age 65+) or both?
  9. What is the age range of the geriatric patients?  
\_\_\_\_\_.
  10. In the last 5 years, has the overall patient load increased or decreased? Has the average older patient's age increased or decreased? Note: If there is a change, what do you think is the reason for the change?
  11. Tell me what you think about the health and social services for older persons in America today?
  12. Tell me what you think about the health status of older persons in America today?

13. What would you consider to be the average medical and social complaints of the geriatric patients?
14. What percentage of the geriatric patients do you usually refer to doctors \_\_\_\_\_. Nurses \_\_\_\_\_. For what causes?
15. What percentage of the referrals do you think do not go on to see a doctor \_\_\_\_\_. Why do you think they do not?
16. Do you feel that in some cases the geriatric patients do not need medical attention? If so, explain.
17. How much time, on average, do you spend with your geriatric patients?
18. Do they communicate their problems well?
19. Who describes the older patient's health or social problem when they are in the company of their family or significant other?
20. Tell me about your relationship with the families.
21. Tell me how you feel about people living so much longer today, that is, to ages 85 to 90 and beyond?
22. What do you feel are the major problems facing geriatrics today, and into the future?
23. Would you work in a community setting if geriatric services were available in the communities and the geriatric social work were similar to your work now?

**APPENDIX F**

# **FOCUS GROUP**

**STRATEGIC PLANNING TO PREPARE GERIATRIC HEALTH CARE  
FOR THE ACTIVE AND FUNCTIONALLY INDEPENDENT  
TWENTY-FIRST CENTURY OLDER AMERICANS**

**October 21, 1991**

**STRATEGIC PLANNING TO PREPARE GERIATRIC HEALTH CARE  
FOR THE ACTIVE AND FUNCTIONALLY INDEPENDENT  
TWENTY-FIRST CENTURY OLDER AMERICANS**

**MODERATOR: Marian Watson, Ph.D. candidate,  
Loyola University of Chicago**

**THE FOCUS GROUP**

**Older**

**Americans:** - Chairman of the Board Emeritus.  
- Vista volunteer.  
- Director, older Americans job placement.  
- Retired teacher.

**Geriatricians:** - Loyola University of Chicago Medical Center.  
- Northwestern University Hospital.  
- Rush-St Luke Presbyterian Hospital.  
- University of Chicago Hospital.  
- Community Health Care Clinic.

**Gerontological**

**Nurses:** - Northwestern University Hospital.  
- Rush-St Luke Presbyterian Hospital.  
- Rush-St Luke Presbyterian Hospital.  
- Community fee-for-service.

**Geriatric**

**Social Workers:** - Northwestern University Hospital.  
- University of Chicago Hospital.

**Community-Based  
Demonstration**

**Project:** - Umoja Care, Inc.

**Medicare:**

- Professional Relations Medicare  
Representative, Health Care Service Corp.

## PREFACE

As we approach the end of the twentieth century in America, concerns are being expressed that the prevailing geriatric health care does not meet the needs of the majority of contemporary older Americans who are active and functionally participatory. This conclusion is based on findings from a recent literature search. It is also based on findings from recent interviews with geriatric health care professionals and older Americans.

A lack of geriatric health care adequacy could adversely affect many of the over 30 million older Americans today, and the twenty-first century older Americans to a greater extent because the age 65 and over population is projected to increase from the current 31.242 million (1990 Census) to 68.1 million by the year 2040. Based on the 1991 U. S. Census Bureau projections for the total U. S. population, that will equate to one in four Americans.

These and other older American demographics are expected to have a more dramatic effect on the health care sector in the twenty-first century than on any other in our society. The twenty-first century older Americans, many of whom will be the over 70 million babies born between 1946-1964, are expected to be healthier because of ongoing medical breakthroughs, and they will have been more health conscious leading to age 65. In addition, they are better educated, more socially aware, and politically astute. These factors are expected to influence the way they will grow old, and the health and social services they will require and demand.

Clearly, aging causes impairments. However, because so many of the twenty-first century older Americans are now more conscious of their health status and the world around them, their inescapable chronic conditions will most likely be more subtle and complex than the debilitating conditions of contemporary older Americans. Hence, it is reasonable to expect that their dysfunctions, disabilities, and chronic conditions will not be controlled within the framework of the prevailing geriatric health care model, a concept of "cure."

Already, the great majority of contemporary older Americans suffer with at least one or multiple chronic conditions that do not fit this model: arthritis (50 percent); hypertension (39 percent); hearing impairment (30 percent); heart conditions (26 percent); orthopedic impairments (17 percent); cataracts and sinusitis (15 percent each); visual impairments (10 percent); and diabetes (9 percent) (U. S. Senate report, Special Committee on Aging, 1984). It is conjectured that to meet the needs of the

diverse 68 million twenty-first century older Americans, twice the number of today's older Americans, geriatric health care professionals and providers must look beyond the concept of "cure" and address the pathophysiology of associated diseases, management and control of chronic conditions, functional limitations, behavioral aspects of illness, socioeconomic factors, and socially meaningful interactions that may impinge on their medical management.

As the baby boomers age into the twenty-first century, they can be expected to continue impacting and transforming society as in the past. For example, in the 1950s, 1960s, and 1970s, they overpowered the elementary schools, secondary schools, and colleges and universities to the point of pre-fabricated and overcrowded classrooms and extended campuses. In the 1980s, they controlled middle management in the corporate world. Simultaneously, they influenced a lack of trust for anyone over thirty in the 1970s, thirty-something was "in" in the 1980s, and society in 1991 has accepted, by their influence, that forty is fashionable. Accordingly, as they age into the older population, it can be expected that they will continue to overpower and transform society and its sectors, and age 65 years and over may well be in high-fashion. Thus, to project further, they will be less likely to accept the present-day lack of understanding, explanation, and stereotypic attitudes about aging. They will not accept that their health care is based on a medical model of "cure" that is more appropriate to the young. And finally, they will not tolerate a lack of control of their progressive chronic conditions that could lead to their dysfunction, disability, and subsequent reduced quality of life.

This focus group has been called together to discuss Geriatric health care for the twenty-first century. In this document you will find:

- (1) The specific objectives of the focus group;
- (2) Assumptions about aging, older Americans, and geriatric health care;
- (3) A synopsis of national and international geriatric health care programs and supporting tables; and,
- (4) An agenda for strategic debate on Quality of Life needs assessment.



**STRATEGIC PLANNING TO PREPARE GERIATRIC HEALTH CARE  
FOR THE ACTIVE AND FUNCTIONALLY INDEPENDENT  
TWENTY-FIRST CENTURY OLDER AMERICANS**

**THE FOCUS GROUP OBJECTIVES**

This distinguished group has been assembled to comprehensively focus on:

- Generally, effective approaches for controlling the chronic conditions of the active and functionally participatory twenty-first century older Americans;
- Assumptions that the health care community and society make about aging and care of the aged.
- Geriatric health care programs that have been tried, and the parts that have been successful and failed.
- Strategies for reforming geriatric health care so that a majority of older persons will be served and the providers will be equitably reimbursed.

**ASSUMPTIONS**

- That twenty-first century older Americans will be different from today's older Americans.
- That prevailing geriatric health care does not meet the needs of contemporary older Americans.
- That without alternatives to the existing health care system, the twenty-first century older Americans will have inadequate health care of crisis proportions.
- That advanced preparation can help to crystallize structure and standards to help control the chronic conditions of the more active and functionally participatory twenty-first century older Americans.
- That social support increases the quality of life (physical and mental health) for the majority of older Americans.
- That the conditions of twenty-first century aging will be as much a social issue as a biological issue.

- That the types of geriatric health care and social services have been sufficiently identified to assess what prevention, health maintenance, and wellness is appropriate to support a large populations of twenty-first century older Americans.
- That most geriatricians, primary care physicians, and practitioners do not have a common perspective on the health care of older Americans.
- That prevailing quality geriatric health care is limited to the acute care setting and is not within proximity, accessibility, and convenience to the majority of older Americans.
- That the burden of geriatric health care must be on health professionals and not on social services or older persons.
- That geriatric health care is not now a positive reference system for older Americans or physicians and other practitioners who treat them, and therefore, the stigma of aging must be overcome within the health care community, governmental agencies, and society before any real progress in geriatric research, geriatric health care, and geriatric health care financing can be expected.

## IDENTIFICATION of NATIONAL GERIATRIC HEALTH CARE PROGRAMS

### MEDICARE

Medicare is a federal program that was created in 1965 to help pay the health costs of older Americans and the disabled. All elderly Social Security and railroad retirement recipients are eligible for Medicare. Elderly individuals who are not entitled to automatic hospital coverage may purchase the Hospital Insurance.

--Medicare Part A (Hospital Insurance or HI) covers hospital costs, hospice costs, and short term (less than 100 days) nursing home and home health costs. Part A is financed by a portion of the Social Security payroll tax. Even with the more efficient DRG-based reimbursement system, Medicare expenditures were estimated at \$74.3 billion in fiscal 1986, and outlays are projected to reach \$98.4 billion by the end of 1991 despite government cutbacks.

Comments:

--Medicare Part B (Supplemental Medical Insurance or SMI) covers physician services, hospital out-patient services, laboratory, and other medical services. Part B is partially financed (25 percent) through monthly fees paid by the recipients and partially (75 percent) through general tax revenues. This fund is expected not to go bankrupt because its solvency is guaranteed by law via appropriations from general revenues; however, its outlays are increasing much faster than those of Part A, and thus, the fund threatens to consume a growing share of the already deficit-ridden federal budget.

Comments:

Given this scenario, the federal government may soon reform Medicare. The options may be to:

- (1) Increase beneficiary premiums and coinsurance, raising payroll taxes, or by appropriating more funds from general tax revenues;
- (2) Decrease expenditures by curtailing reimbursement rates;
- (3) Transfer risk and responsibility for care and costs to other parties;
- (4) Restrict eligibility to the Medicare program; and
- (5) Reform the Medicare allowables from a dominant intensive care model to more preventative care.

Comments:

(Please select the preferred option and explain why preferred)

**Explanation of Benefits Under the Medicare Catastrophic Coverage Act of 1988**

**PART A  
MEDICARE BENEFITS**

Service	1988	1989	1990	1991
<b>PART A</b>				
<b>Inpatient Hospital Services</b>	All but \$540.00 for first 60 days/benefit period	All but \$560.00 deductible for an unlimited number of days/calendar year	All but Part A deductible for an unlimited number of days/calendar year	All but Part A deductible for an unlimited number of days/calendar year
<b>Semiprivate Room and Board</b>	All but \$135.00 a day for 61st-90th days/benefit period			
<b>Miscellaneous Hospital Services and Supplies, such as Drugs, X-rays, Lab Tests, and Operating Room</b>	All but \$270.00 a day for 91st-150th days (if the individual chooses to use 60 nonrenewable lifetime reserve days)/benefit period  Nothing beyond 150 days			
<b>Skilled Nursing Facility Care</b>	100% of costs for first 20 days (after a three day prior hospital confinement)  All but \$67.50 a day for 21st through 100th day  Nothing beyond 100 days	80% of Medicare reasonable costs for first eight days per calendar year without prior hospitalization requirement;  100% of costs thereafter, up to 150 days/calendar year	80% for first eight days/calendar year  100% for 9th-150th day/calendar year	80% for first eight days/calendar year  100% for 9th-150th day/calendar year
<b>Blood</b>	Pays all costs except nonreplacement fees (blood deductible) for first three pints in each benefit period	Pays all costs except payment of deductible (equal to costs for first three pints) each calendar year; Part A blood deductible reduced to the extent paid under Part B	All but blood deductible (equal to costs for first three pints)	All but blood deductible (equal to costs for first three pints)

**PART B  
MEDICARE BENEFITS**

Service	1988	1989	1990	1991
<b>PARTS A AND B</b>				
<b>Home Health Services</b>	Intermittent skilled nursing care and other services in the home (daily skilled nursing care for up to 21 days or longer in some cases)—100% of covered services and 80% of durable medical equipment under both Parts A and B	Same as 1988	Intermittent skilled nursing care for up to seven days a week for up to 38 days allowing for continuation of services under unusual circumstances; other services—100% of covered services and 80% of durable medical equipment under both Parts A and B	Same as 1990

**PART B  
MEDICARE BENEFITS (CONT.)**

Service	1988	1989	1990	1991
<b>PART B</b>				
<b>Medical Expense Services of a physician/outpatient services. Medical supplies other than prescribed drugs</b>	80% of reasonable charges after an annual \$75.00 deductible	80% after annual \$75.00 deductible	80% of reasonable charges after \$75.00 annual deductible until out-of-pocket maximum is reached; 100% of reasonable charges are covered for remainder of calendar year	Same as 1990
<b>Blood</b>	80% of costs except nonreplacement fees (blood deductible) for first three pints in each benefit period after \$75.00 deductible	Pays all costs except payment of deductible (equal to costs for first three pints) each calendar year	Same as 1989	Same as 1989
<b>Mammography Screening</b>			80% of approved charge for elderly and disabled Medicare beneficiaries—exams available every other year for women 65 and over	Same as 1990
<b>Out-of-Pocket Maximum</b>			\$1,370.00 consisting of Part B after \$75.00 deductible, Part B blood deductible and 20% coinsurance	\$1,370.00 will be adjusted annually by Secretary of Human Health Services
<b>Outpatient Prescription Drugs</b>				Covered after \$600.00 deductible subject to 50% coinsurance
<b>Home IV Drug Therapy</b>			80% of IV therapy drugs subject to \$550.00 deductible (deductible waived if home therapy is a continuation of therapy initiated in a hospital)	80% of IV therapy drugs subject to standard drug deductible (deductible waived if home therapy is a continuation of therapy drugs initiated in a hospital)
<b>Immunosuppressive Drug Therapy</b>	80% of costs during first year following a covered organ transplant (no special drug deductible; only the regular Part B deductible)	Same as 1988	Same as 1988 for first year following covered transplant, except Part B deductible does not apply; 50% of costs during second and following years (subject to \$550.00 deductible)	Same as 1990 (subject to \$600.00 deductible)
<b>Respite Care</b>			In-home care for chronically dependent individual covered for up to 80 hours after either the out-of-pocket limit or the outpatient drug deductible has been met	Same as 1990

Source: Geriatrics Review Syllabus. The American Geriatrics Society. 1989.

In addition to the limits on long-term care and home care, Medicare does not cover eye examinations and eyeglasses, hearing examinations and hearing aids, and routine dental treatments and dentures.

Comments:

## **MEDICAID**

Medicaid is a federal and state program that helps certain low-income individuals of all ages get medical care. Eligible individuals include recipients of Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI), and may include those receiving other cash assistance or needing nursing home care. In 1984, 16 percent of Medicaid recipients were older persons (age 65+) and 37 percent of program costs were for older recipients.

Medicaid covers a wide range of medical services including hospitalization, physician care, laboratory, and x-rays. Unlike Medicare, Medicaid pays long-term nursing home costs. Nursing home costs represent about 75 percent of the Medicaid costs for older persons. In fact, older Americans consume the biggest single Medicaid expense in their last year of life.

Comments:

## **The Implications of Medical Technology to Medicare**

Medicare is popularly viewed as contributing to spiraling health care expenditures, primarily hospital costs. However, Gibson, Waldo, and Levit (1983); Estes (1983); and, Lee and Benjamin (1989) believe that the increase in Medicare expenditures has been due mainly to the rapid inflation in hospital costs and physicians' fees, not to the growth of the older population, per se, nor to their increased utilization of services.

Comments:

Waldo and Lazenby (1984) contend that health care payment mechanisms, including third-party payments based primarily on incurred costs and the fee-for-service reimbursement of physicians that is underwritten by government programs, offer little incentive for physicians or patients to reduce their use of costly medical technologies or outpatient care. Instead, there has been a built-in incentive for physicians to provide more hospital-based services.

Comments:

Waldo and Lazenby relate further that escalating hospital costs alone have diminished the intended purpose of Medicare to protect older people from the financial strain of needed medical care. Critics of the fee-for-service system for providers maintain that the primary beneficiaries of Medicare have been hospitals, physicians, insurance companies, and the medical supply and equipment firms, not older people with chronic care needs (Harvard Medicare Project, 1986; Estes, 1983; Minkler and Estes, 1984).

Comments:

Because Medicare copayments are linked to a person's use of service, they are inherently unpredictable, which undermines the principle of insurance that Medicare was designed to promote (Harvard Medicare Project, 1986).

Comments:

## **Reforming Medicare**

Advocates of rationing intensive expensive health care interventions, such as organ transplants, artificial organs, and replacement joints, maintain that the emphasis should be on long-term care and home care to improve quality of life, rather than on acute care and quantity of life (Callahan, 1987).

### **Comments:**

Should older Americans be denied life-saving technologies?

Should the constraints be removed against reimbursement for preventive care?

Should Parts A and B be combined into a single program?

Should the age of initial Medicare eligibility be raised from age 65 if, as some consider, debilitating chronic diseases may now be affecting older persons later in life?

Should Medicare be shifted from an age- to a needs-based Medicare system?

Should Part C be established to cover both acute and chronic needs?



## HOSPITALS

The community general hospital is the primary source of health care services for older people. According to Brody and Persily (1984), most of the hospital admissions are for acute episodes of chronic problems. Today, in addition to providing acute care to older persons, hospitals also are the points of access to long-term care. Hospitals are effective in rendering geriatric health care by qualified and specialty trained geriatricians, and comprehensive discharge planning to assist older patients in receiving coordinated and continuing care after discharge either through the home care program of the hospital or by means of referral to the appropriate facility or agency.

If hospitals as providers of care for older persons could be thought of as extended medical emergency service providers, very much on the order of a police or fire station, then there could be no question about their appropriateness for the care of older persons. There would be available a high-technology setting and qualified staff to adequately support their acute episodes of medical emergencies.

Comments:

Before the introduction of the Medicare diagnosis-related groups (DRGs), hospital utilization among older persons had been increasing for years. A survey of community hospitals by the American Hospital Association revealed that admissions among persons over 65 reached 11.8 million in 1983, and 4.8 percent average annual increase since 1977. It appears that DRGs have encouraged a reduction in average length of stay and hospital day rates for elderly patients.

Comments:

## **PHYSICIAN SERVICES**

Older persons average a higher use of physician services than do younger persons. The 1981 National Ambulatory Medical Care Survey reported that the elderly were the least likely age group to experience a short physician visit (under 10 minutes of face-to-face contact with the doctor), and the most likely to schedule a return visit. Physician visits by older persons are expected to increase significantly during the next decade. The U. S. Census Bureau projections based on the 1980 visit rates (153 million visits) call for a 47 percent increase (to 225 million visits) from the year 1980 to 2000. This increase may be due to more office and outpatient visits outside of the hospital since the DRG system discourages hospital stays.

Comments:

## **PHARMACEUTICAL UTILIZATION**

Older persons as a group are also the heaviest users of prescription and over-the-counter drugs. More than 75 percent have at least one prescription annually, compared with less than 60 percent of the total population. According to the Office of Technology Assessment, 90 percent of the prescriptions and over-the-counter medications are for long-term use to address chronic conditions.

The Office of Technology Assessment considers that although pharmaceuticals are usually effective in improving the condition or comfort of older persons, drug usage itself can pose a major health problem for them. They suggest that problems could be due to adverse drug reactions or interactions, noncompliance, and lack of reliable information about the drug metabolism and distribution within the body. The Office of Technology Assessment estimates that the cost of adverse drug reactions alone among older persons totals at least \$3 billion annually, and that persons 70 to 90 years of age have three to six times as many adverse reactions to drugs as do those under age 50. Thus, it appears that older persons who are the most likely age group to use and rely on prescription and over-the-counter drugs, are also the most likely to suffer from their usage.

Comments:

## **SOCIAL HEALTH MAINTENANCE ORGANIZATIONS**

Social health maintenance organizations, or SHMOs, are capitated service delivery mechanisms for older Americans. The SHMO concept expands on the HMO's medical model to include health and social services and to integrate them with acute care. SHMOs address both the fragmentation of service providers and the fragmentation of funding sources by offering a coordinated care continuum with a central reimbursement mechanism.

The SHMO concept is distinctive in the following respects:

- 1) A full spectrum of acute and long-term care services is offered by provider agencies linked together in formal relationships with joint responsibility for outcomes;
- 2) The SHMO manages the care of older persons across the service spectrum;
- 3) Care is financed on a prepaid, capitated basis, funds are pooled at the SHMO level, and all premium and payment structures are established in advance; and,
- 4) The SHMO assumes financial risks for care costs, and all affiliated providers share in the gains or losses from operations.

In 1980, HCFA awarded a planning grant to the University Health Policy Consortium at Brandeis University to develop the SHMO concept. Four demonstration sites were selected: Metropolitan Jewish Geriatric Center, Brooklyn, New York; Kaiser Permanente Medical Care Program, Portland, Oregon; Ebenezer Society, Minneapolis, Minnesota; and, Senior Care Action Network, Long Beach, California. Marketing and cost-effectiveness problems were incurred with these projects.

The Medicare demonstrations indicate that Medicare beneficiaries will enroll in alternative delivery systems if benefit packages are attractive. The large enrollments under the restrictive conditions of time-limited demonstration projects have been particularly positive. Nonetheless, reimbursements levels have not been accurately predicted, and cost savings comparisons have not been contrasted with Medicare commercial insurance carriers.

Comments:

**Social HMO Benefits Package (For Non-Medicaid Eligibles) Compared with Medicare Part A and Part B Coverage**

Service	Medicare Benefit	Social/HMO Benefit
<i>Institutional Services</i>		
Acute hospital	90 days each benefit period plus 60-day lifetime reserve. \$356 deductible per spell of illness on Part A benefits required. Copays noted below are 1984 figures and assume deductible has been paid. For each day between 61st and 90th day the beneficiary pays \$89. For each reserve day, the payment is \$178.	Unlimited number of days for prescribed hospitalization at hospital approved by S/HMO. Complete hospital services (inpatient and outpatient) including all physicians' and surgeons' services. No deductibles, no charges.
Psychiatric hospital	190 days lifetime. Copayments same as inpatient hospital.	190 days lifetime. No copays, no charges.
Skilled-nursing-facility care meeting Medicare criteria	After 3 consecutive days in hospital and then transfer to SNF: first 20 days no charge; 21st through 100th day: \$44.50/day.	No prior hospitalization requirement. No deductibles, no charges. Kaiser and SCAN 100 days. Elderplan: 365 days. Medicare Partners: Unlimited days.
Skilled- and intermediate-nursing-facility care of a custodial nature	Not covered	Covered up to limits of chronic care benefit. Kaiser: 100 days. Elderplan and Medicare Partners: \$6,500. SCAN: \$7,500. Coinsurance and benefit periods vary (see Table 3).
<i>Medical &amp; Related Services</i>		
Physician's services	Medicare pays 80% of allowable charges after \$75 annual deductible on Part B benefits is paid. Includes ambulatory (outpatient) surgery. Physicals and preventive care not covered.	Covers Medicare deductible and coinsurance. Ambulatory surgery, routine physician exams, preventive care included. Kaiser: \$2 per visit. Elderplan includes authorized house calls by physician or physician extender.
Outpatient physical therapy and speech pathology services	Part B Services—80% of allowable charges.	Medicare outpatient physical therapy and speech pathology services covered in full by sites. No charges except Kaiser: \$2 regular fee.
Out-of-plan services	Emergency and non-emergency services covered anywhere in the U.S.	Approved emergency services covered anywhere in the world. Kaiser and SCAN—no charges. Elderplan and Medicare Partners: 80% coverage of first \$500, then same coverage as hospital and medical services described above.
Pharmacy	Not covered	Prescription drugs covered at all sites. Copay range \$1–\$3.50.
Optometry	Only covered if related to treatment of aphakia or if part of a covered medical service.	Covered in full. Kaiser \$2 copay. Elderplan specifies one exam/year.
<i>Medical &amp; Related Services (cont.)</i>		
Audiometry	Not covered	Covered in full. Elderplan and Medicare Partners specify one exam/year. Kaiser: \$2 copay.
Eyeglasses	Not covered (contact lenses for post-cataract surgery patients: approx. 80/20 per part B.)	Covers one pair glasses in each 24 month period. Kaiser and SCAN—no charge. Elderplan: \$10 copay; Medicare Partners: 50% copay.

## Continued

Service	Medicare Benefit	Social/HMO Benefit
Hearing aids	Not covered	Covers one hearing aid in each 24 month period. Kaiser—no charge. Copays: Elderplan \$40; SCAN \$50; Medicare Partners: 50%.
Nurse practitioner and physician assistant services	80% of allowable charges when provided incident to physician services.	Covered in full. Kaiser \$2 per visit.
Mental health outpatient visits	80% of doctor charges up to \$250 maximum (after \$75 deductible). 80% of other professional charges.	Kaiser: 6 visits/year to psychiatrist; no limit to other professionals. Other sites: 20 visits/year. Copay per visit: Kaiser \$2; Elderplan \$5; Medicare Partners: \$10; SCAN—no charges.
Foot care	Routine foot care services not covered except when performed as necessary part of a covered medical service. Medicare pays 80% of allowable charges.	Medically necessary podiatry—Kaiser \$2 copay, other sites no charges. Elderplan in addition provides routine foot care at \$2/visit.
Blood	First 3 pints not covered; then 80% of allowable.	Covered in full.
Medical equipment and supplies	80% of allowable charge on durable medical equipment, prosthetic devices, and supplies.	Durable medical equipment, prosthetic devices and supplies covered in full when ordered and provided by plan.
Lab and X-ray	Part B Services: 80% of allowable charges.	Covered in full.
Dentistry	80% of allowable charges <i>only</i> if it involves <i>surgery of the jaw</i> , setting fractures of the jaw and facial bones, treatment of oral infection, dental procedures that are integral part of medical procedures. Routine dental services not covered.	Medicare benefits covered in full—no charges. In addition, all sites cover dentures under the chronic care benefit limits, with copays (Kaiser 10%, Medicare Partners 20%, Elderplan and SCAN \$50). SCAN also covers routine care; Medicare Partners covers diagnostic and preventive care; Elderplan covers erupted tooth extractions and denture repair (\$15 copay).
<b>Home-Health and Other Community-Based Services</b>		
Medicare H.H. services (includes visiting nurse, home-health aide; occupational, speech, and physical therapies; and social work services)	100% of allowable costs, skilled-care criteria and home-bound.	Medicare home health covered in full. Coverage expanded beyond skilled care and homebound criteria when approved for long-term-care plan.
In-home support services (such as: homemaker, personal health aide, medical transportation, medical day treatment, respite care; and arranging and coordination of other services such as home-delivered meals, chore services, additional transportation, electronic monitoring)	Not covered	Covered with limits, copays, and renewability conditions as specified in Table 3 (varies by site).
Hospice: home-health care, inpatient treatment for acute and chronic symptom control, family respite, outpatient drugs, counseling and volunteer services for terminal cancer	5% copay or \$5/prescription for outpatient drugs, whichever is less. 5% copay for inpatient respite costs, up to a maximum of \$304. All other hospice services are fully covered.	Covered in full (no copays).

Source: Leutz, Greenberg, Abrahams, Protas, Diamond, Gruenberg, *Changing Health Care for an Aging Society: Planning for the Social HMO*, Lexington Books, (in Press).

## Overview of S/HMO Demonstration Sites

Site Sponsors	Type of Sponsor	Relationships to Partner(s)	Key Opportunities and Obstacles
Metropolitan Jewish Geriatric Center (MJGC) Brooklyn, N.Y. (Elderplan, Inc.)	Comprehensive chronic care agency	<ul style="list-style-type: none"> <li>• Capitation contract and bottom-line risk sharing with small affiliated medical group.</li> <li>• Community hospital contracted on modified per diem basis.</li> </ul>	<p><i>Opportunity:</i> A large untapped market</p> <p><i>Obstacles:</i> Creating an HMO and medical group</p>
Kaiser Permanente Medical Care Program Portland, Oregon (Medicare Plus II)	Large established HMO	<ul style="list-style-type: none"> <li>• No partners—S/HMO added to existing Kaiser system.</li> </ul>	<p><i>Opportunity:</i> Use experience and reputation</p> <p><i>Obstacles:</i> Creating LTC services</p>
Ebenezer Society Minneapolis, Minnesota (Medicare Partners)	Comprehensive chronic care agency	<ul style="list-style-type: none"> <li>• Partnership with large established HMO for all acute medical. Bottom-line risk sharing.</li> </ul>	<p><i>Opportunity:</i> Expertise and images of partners</p> <p><i>Obstacles:</i> Competitive HMO market</p>
Senior Care Action Network (SCAN) Long Beach, California	Case management/brokerage	<ul style="list-style-type: none"> <li>• Separate contracts with established medical group and medical center hospital. Both on capitation/risk basis.</li> </ul>	<p><i>Opportunity:</i> Large untapped market</p> <p><i>Obstacles:</i> Management and incentives in the system</p>

Source: Greenberg and Leutz, "The Social Health Maintenance Organization and Its Role in Reforming the Long-Term Care System" in Feinstein, Gornick, Greenberg, *Long-Term Care Financing and Delivery Systems*, DHHS, HCFA, January 24, 1984, Page 59

## HOME CARE

Home care can be defined as the provision of equipment and services to the patient in the home for the purpose of restoring and maintaining his or her maximal level of comfort, function, and health. It is a rapidly growing field that is beginning to attract greater physician interest and participation. Cost-containment pressures have led to reduced institutionalization in hospitals and nursing homes and to more patients, both acutely and chronically ill, being cared for in their own homes.

Undergraduate and graduate medical education programs are developing home care curricula, and academic medicine is beginning to develop a research agenda, particularly in the area of clinical outcome measurements. The area of preventive, diagnostic, therapeutic, rehabilitative, and long-term maintenance care are all well represented as physicians develop new practice patterns in home care.

Comments:

## SOCIAL CARE

Social care relates to a broad range of services, extending from recreational, nutritional, and health promotional care provided at senior centers, transport and day care for ambulatory chronically ill elderly, personal care services in the home such as grooming, home maintenance, housekeeping, and shopping services by homemakers and chore workers, as well as home-delivered meals.

Payment for and availability of these services are determined by state and local decisions regarding allocation of dollars provided under Title III of the Older Americans Act, and Title XX of the Social Security Act as coordinated through state and local Offices of Aging. Many of these services to older persons are available with few restrictions, beginning at age 60 rather than 65.

Comments:

## **SENIOR CENTERS**

According to the National Association of Senior Centers, there are more than 9000 Senior Centers in the United States today. Some are private, and others are public. Nearly all receive some public funding, and other revenue sources include United Way, donations, and fee-for-service, although some centers charge nominal membership fees.

Senior centers vary in form and function. Some are parts of community centers or religious establishments, while others are freestanding. Nearly all, however, provide a site to congregate and socialize, many offer one or more meals daily, and many sponsor various wellness, health education, and medical services. The latter usually are provided in conjunction with a community organization or health care provider.

Typically, health care services offered at a senior center include health screening (glaucoma, weight, hypertension, etc), health promotion, insurance counseling, and transportation. Senior centers may offer wellness classes, information and referral, or even case management services. Some hospitals assist in providing such services at low or no charge, both as a community service and to encourage seniors to use the sponsoring institutions when medical care is needed.

Comments:

## **NUTRITION CENTERS**

A critical problem facing many older persons is inadequate nutrition. Experts estimate that up to 25 percent of all nursing home admissions may be directly related to nutritional deficiencies. Experts consider that for some the problem is financial, but for most older persons who lack adequate nutrition simply lack the will or ability to shop for and prepare nutritious meals. Furthermore, transportation may be a limitation. The scope and magnitude of these problems led Congress to introduce the congregate nutrition program as part of the 1972 Older Americans Act amendments. There are over 14,000 congregate nutrition centers in the nation today. They are located in housing projects, senior centers, churches, community facilities, and restaurants.

Comments:



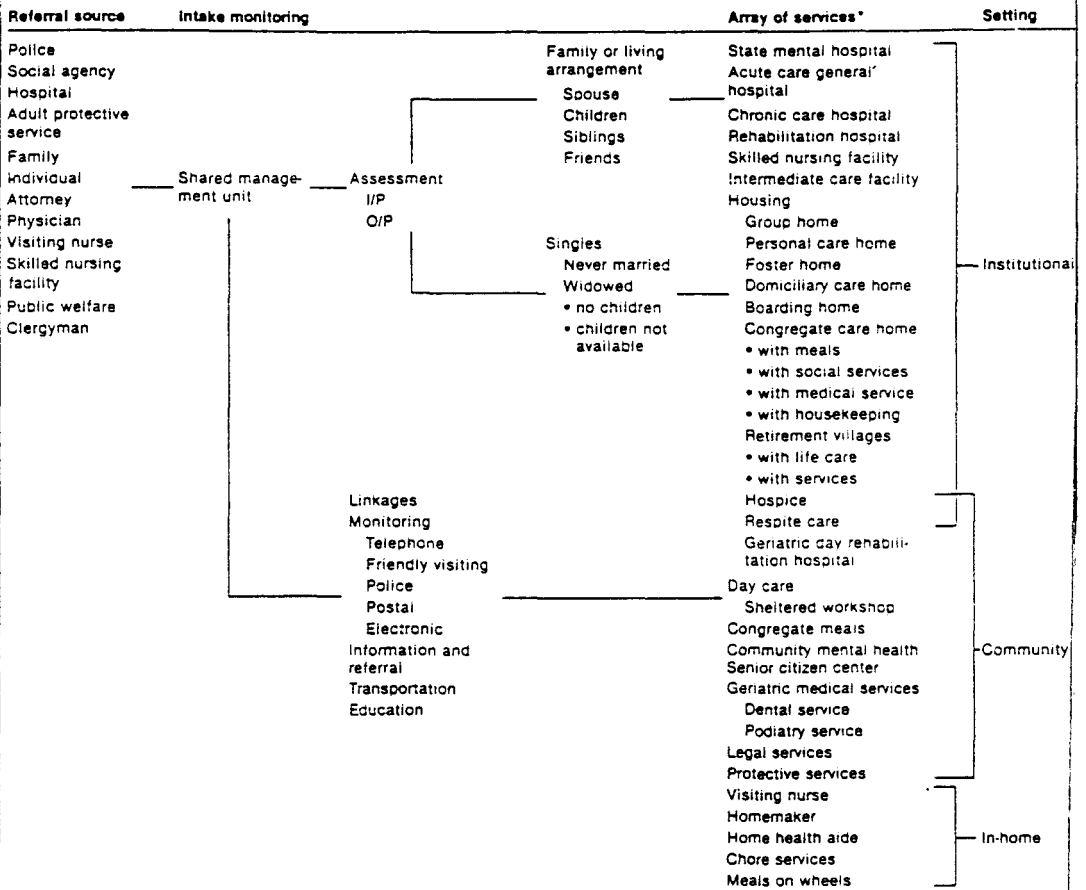
## INTERNATIONAL GERIATRIC PROGRAMS

When the British National Health Service was founded in 1948, geriatric medicine was accorded full specialty status, largely based upon the successful experiences of the earlier pioneers. In the British system, geriatric specialists are in charge of geriatric services that include acute hospital care for the elderly as well as an assortment of coordinated special care programs (such as day hospitals, geriatric rehabilitation units, and home visit services). Under the British system of "progressive geriatric care," elderly patients requiring hospital admission (except those requiring intensive medical care) are usually first admitted to an acute-care geriatric assessment/evaluation unit. In this unit, each patient receives a comprehensive assessment of medical, functional, and psychosocial problems during an approximately 2- to 3-week length of stay. Care plans are established on the unit, usually by an interdisciplinary team, and the next level of care and placement is decided on: whether discharge to home, to a rehabilitation or chronic-care ward, or to a long-term care facility. The geriatric assessment units also accept patients in need of assessment from other institutions, often for periodic reassessment.

Several other countries (including Sweden, Australia, Norway, Israel, and the Netherlands) have built (or are building) geriatric care systems with many similarities to the British system, most with centrally located geriatric assessment units as focal points for entry into the care system. Less intensive assessments are provided to elderly patients through other programs, such as consultation clinics, home visits, and day hospitals.

Comments:

## Inventory of recommended available sources appropriate to a long-term care and support system



\*Services listed from most to least restrictive but may vary within service.

Source: Brody and Masciocchi, 1980.

## CONCLUSIONS

The aging network represents a broad system of geriatric care delivery, most of which is primarily fragmented. Additionally, many or most of these services are not now reimbursed by third-party payors. However, if the burgeoning older population of the twenty-first century comply with the projections of the experts, they will demand information, transportation, and long-term and personal care services, which may inadvertently lead to the introduction of reimbursement for many of these services in the future.

Although the United States lacks a national or comprehensive geriatric health service, which in other countries has facilitated development of comprehensive geriatric care systems, many components of such a geriatric care system exist to facilitate a comprehensive network. Providers of geriatric services may be wise to take a proactive stance in the twentieth century, rather than react inappropriately in the twenty-first century. This focus group is now prepared to develop such a network. Lets get busy!

### **AGENDA FOR STRATEGIC PLANNING**

- Develop a list of geriatric services appropriate to the active and functionally participatory twenty-first century older persons.
- Devise a geriatric network that will be appropriate and efficient to serve a large population of active and functionally participatory twenty-first century older persons who will inescapably experience subtle and complex chronic conditions.

**CURRENT GERIATRIC HEALTH AND SOCIAL SYSTEM**

**VS**

**FOCUS GROUP GERIATRIC HEALTH AND SOCIAL SYSTEM**

<b>CURRENT</b>	<b>FOCUS GROUP</b>
<ul style="list-style-type: none"> <li>● Focuses on acute care (cure).</li> <li>● Looks at isolated problems.</li> <li>● Quality care delivered primarily in institutions.</li> <li>● Care delivered primarily by community physicians.</li> </ul>	<ul style="list-style-type: none"> <li>● Covers acute, chronic, social support, and lifestyle needs.</li> <li>● Looks at constellation of problems.</li> <li>● Quality care delivered primarily in the community and and the home.</li> <li>● Quality care delivered by a range of people: health professionals, social service professionals, volunteers, etc.</li> </ul>

**GERIATRIC NETWORK CENTER CRITERIA**

**FOCUS GROUP DECISIONS**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>● Site Selection (Malls, etc).</li> <li>● Service Area.</li> <li>● Full-time Staffing.</li> <li>● Part-time Staffing.</li> <li>● Relationship with Hospitals.</li> <li>● Relationship with Doctors.</li> </ul> | <ul style="list-style-type: none"> <li>● Costs.</li> <li>● Reimbursement.</li> <li>● Management.</li> <li>● Physical Plant.</li> </ul> |
|---|--|

STRATEGIC PLANNING MODEL  
GERIATRIC HEALTH AND SOCIAL SERVICE OPTIONS  
FOR TWENTY-FIRST CENTURY OLDER AMERICANS

(You may add to this list)

- |  |  |
|--|--|
| 1 * Marketing  | 27 * Regular social events   |
| 2 * Health care clinic   | 28 * Housing counseling  |
| 3 * Pharmacy service   | 29 * Telephone monitoring service  |
| 4 * Physician referral   | 30 * Language classes  |
| 5 * Health education   | 31 * Fitness classes   |
| 6 * Professional geriatric care training   | 32 * Spiritual counseling  |
| 7 * Medication monitoring  | 33 * Support group for chronic ailments and widowed                          |
| 8 * Medication counseling  | 34 * Recreational opportunities  |
| 9 * Health screening   | 35 * Leisure opportunities (trips)   |
| 10 * Database case management  | 36 * Chronic condition management  |
| 11 * Two-way communication with health professional                                | 37 * Prescription drugs computerized by Social Security number               |
| 12 * Home health care services   | 38 * Health status obtained by security access codes (patient, doctor, etc.) |
| 13 * Nutrition counseling  | 39 * Fine restaurant dining  |
| 14 * Legal counseling  | 40 * Student visitation program  |
| 15 * Health insurance counseling   | 41 * Nursing and rehabilitative service                                      |
| 16 * Family counseling   | 42 * Dental examination and prophylaxis                                      |
| 17 * Financial counseling / estate planning  | 43 * Ophthalmology service   |
| 18 * Retirement planning   | 44 * Laboratory tests and diagnostic X-ray examinations                      |
| 19 * Job placement   | 45 * Audiometric testing   |
| 20 * Transportation program  | 46 * Activities program  |
| 21 * Adult day care <i>These may be subsidized by family and corporations,</i>     |  |
| 22 * Child day care <i>and older persons could provide child day care services</i> |  |
| 23 * Meals   |  |
| 24 * Home delivered meals  |  |
| 25 * Home safety assessment  |  |
| 26 * Newsletter  |  |
-



**Scratchsheet**



**APPENDIX G**

## IDENTIFIER FORM

for

## Subject Interview Questionnaire and Taped Transcription

Date of Interview: \_\_\_\_/\_\_\_\_/\_\_\_\_.

Subject I. D. No: \_\_\_\_\_.

Name: \_\_\_\_\_.

Telephone #: \_\_\_\_\_.

Cluster Group #: \_\_\_\_\_.

Cluster Group Name: \_\_\_\_\_.

Cluster Group Telephone #: \_\_\_\_\_.

Cluster Group Address: \_\_\_\_\_.

\_\_\_\_\_.

Date of Questionnaire edit: \_\_\_\_/\_\_\_\_/\_\_\_\_.

Date of Tape Transcription: \_\_\_\_/\_\_\_\_/\_\_\_\_.

Date(s) of follow-up: \_\_\_\_\_.

Notes:

**APPENDIX H**



LOYOLA  
UNIVERSITY  
CHICAGO

WATER TOWER CAMPUS

Water Tower Campus  
820 North Michigan Avenue  
Chicago, Illinois 60611  
Telephone: 312/913-6000

December 27, 1991

Mr. Jeff Bierig  
Chicago Tribune  
435 North Michigan Avenue,  
Chicago, Illinois 60611

Dear Mr. Bierig:

As you requested, I am writing to request permission to reprint the graphic "Aging in Cell: the causes and the processes," from the Chicago Tribune's special health care series called Aging on Hold that was authored by Ronald Kotulak and Peter Gerner. The graphic was published on December 8, 1991, in Section 1 on page 23. (See enclosed copy.)

As a doctoral candidate at Loyola University Chicago, I am requesting permission to use the "Aging in Cell..." graphic in Chapter II (Literature Review) of my dissertation, at the end of the section on aging theories. The graphic will not be modified, and full credit will be provided for the graphic as required under the rules of the dissertation guidelines. Since the graphic listed the source as the AMA Encyclopedia of Medicine, and Stephen Ravenscraft and Terry Volpp are listed as the graphic designers, could you please provide me the most correct dissertation source? For example:

Source: Ronald Kotulak and Peter Gerner. Aging on Hold: Science Begins To Reset The Clock. Chicago Tribune. December 8, 1991. Sec. 1, p.23. Permission granted to reprint graphic.

I would be grateful to obtain a reproducible 8 1/2 x 11 copy of the graphic. Dissertation guidelines require that graphics be black and white, legible, and have a good range of contrast. Please send the information to: Marian Watson  
21 E. Chestnut St.  
Chicago, IL 60611

Thank you so much Mr. Bierig for your kindness in support of educational research in general, and my dissertation on aging in specific.

Respectfully,

*Marian Watson*

Marian Watson

435 NORTH MICHIGAN AVENUE  
CHICAGO, ILLINOIS 60611-4041

JEFFREY D. BIERIG  
MEDIA RELATIONS MANAGER

Marian Watson  
21 E. Chestnut St.,  
Chicago, IL 60611

January 8, 1991

Dear Marian,

Per our conversation and your letter of December 27, 1991, the Chicago Tribune grants you permission to use the graphic "Aging in Cell: the causes and the processes" for your dissertation.

Unfortunately, we do not have the graphic in a form that is reproducible to your specifications. I recommend you take an actual copy of graphic from the newspaper and reduce it on a good quality copy machine.

If you need a copy of the newspaper for this purpose or if I can be of further assistance, please don't hesitate to contact me.

Sincerely,

JEFF BIERIG

October 14, 1991

Dr. xxxxxxxx xxxxxxxx  
Northwestern University Hospital  
750 North Lake Shore Drive  
Chicago, Illinois 60611-2611

Dear Dr. xxxxxxxx:

We are pleased that you have accepted our invitation to participate in focus group research that will concern geriatric practices, programs, and services in the twenty-first century.

The particulars of the focus group that you have agreed to attend are as follows:

Location: Loyola University Chicago  
Water Tower Campus  
820 North Michigan Avenue, Room 829  
Chicago, Illinois 60611

Day/Date: Monday, October 21, 1991

Time: 7:00 pm refreshments, 7:30-9:00 pm Discussion

If you are unable to attend or you need directions to our campus, please do not hesitate me at 312-915-6800.

Thank you.

Sincerely,

Marian Watson

October 28, 1991

Dr. XXXXXXXX XXXXXXXX  
Buehler Center on Aging  
Northwestern University Hospital  
750 North Lake Shore Drive  
Chicago, IL 60611-2611

Dear Dr. XXXXXXXX:

Thank you for participating in the focus group research on preparing geriatric health care for the twenty-first century. As we discussed in the focus group, this research was of particular importance because Americans are now living longer than ever before, and based on the 1990 census, the older population is expected to reach 68.1 million by the year 2040, more than double the current 31.242 million older population. For many twenty-first century older Americans, these added years will be a blessing, enhanced by medical technological breakthroughs and healthy lifestyles. For many others, it will be a bitter-sweet entry into more years of subtle and complex chronic conditions that are not yet broadly studied or understood, but impinges on their very functionality, independence, and overall quality of life.

You were part of an innovative group that challenged these potentially troubling issues facing the twenty-first century. You considered the chronic conditions, explored the current national geriatric programs, and deliberated and debated practical solutions. Your presence firmly establishes your concern for the challenges facing geriatric health care in the twenty-first century. It also provides a great sense of hope for an aging America. Thank you again for being a part of this prestigious group.

Respectfully,

Marian Watson

cc: Dr. Marcel A. Fredericks  
Dr. Steven I. Miller  
Dr. James R. Webster

**APPENDIX I**



A QUALITATIVE STUDY IN MEDICAL SOCIOLOGY AND GERIATRIC MEDICINE: CHALLENGING PERSPECTIVES, PRACTICES, PROGRAMS, AND SERVICES FOR SUCCESSFUL AGING IN THE TWENTY-FIRST CENTURY

Dissertation Research Activities	1991												1992				
	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	
Proposal Development	X---	---	---	---	---	---X	Approved 6/20/91										
Committee Selection / Approval	X---	---	---	---	---	---X	Approved 6/13/91										
Dissertation Director Meetings	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Committee Meetings *						X	X	X	X	X	X	X		X	X	X	X
<b>RESEARCH DEVELOPMENT:</b>																	
Grounded Theory (older persons, geriatricians, g. nurses, g. social workers)							X---	---	---	---	---	---	---	---	---	---	---
Focus Group								X---	---	---	---	---	---	---	---	---	---
Matrix Display										X---	---	---	---	---	---	---	---
<b>CHAPTER DEVELOPMENT:</b>																	
I. INTRODUCTION						X---	---	---	---	---	---	---	---	---	---	---	---
II. REVIEW OF LITERATURE	X---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
III. RESEARCH METHODOLOGY						X---	---	---	---	---	---	---	---	---	---	---	---
IV. RESEARCH FINDINGS							X---	---	---	---	---	---	---	---	---	---	---
V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS									X---	---	---	---	---	---	---	---	---
BIBLIOGRAPHY	X---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
GLOSSARY							X---	---	---	---	---	---	---	---	---	---	---
APPENDICES						X---	---	---	---	---	---	---	---	---	---	---	---
<b>COMPREHENSIVE DISSERTATION REVIEW:</b>																	
Dissertation Committee																	X
Graduate School														X (partial)			X
DISSERTATION ORAL DEFENSE																	X

MW: 1/91

Note: Except for Chapter II, Chapters I, III, IV, and V were given to the Director after each was developed, and upon his final edit and follow-up revisions, each chapter was passed on to the other committee members for their review and edit. The chapters were returned to the Director after their revisions. Chapter II was given directly to the other committee members first since it covered their specialties extensively.

\* Except for June 1991 and April 1992, individual meetings were held with each committee member.

## APPROVAL SHEET

The dissertation submitted by Marian L. Watson has been read and approved by the following committee:

Dr. Steven I. Miller, Director  
Professor,  
Sociological Foundations  
Educational Leadership and Policy Studies  
Loyola Univeristy Chicago

Dr. Marcel A. Fredericks  
Professor,  
Medical Sociology  
Loyola University Chicago

Dr. James R. Webster  
Director,  
Geriatric Medicine  
Buehler Center on Aging - McGaw Medical Center  
Northwestern Univeristy

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 8, 1992  
Date

Steven I. Miller  
Director's Signature