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LaVerne Jourd'hean
DECEMBER 2, 1971

A DESCRIPTIVE STUDY OF AN AGED POPULATION OVER NINETY
IN NURSING HOMES IN MONTANA

by

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A professional paper submitted to the Graduate Faculty
in partial fulfillment of the requirements for the degree

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ABSTRACT

Evidence in the literature indicated an increase in the number of longevous people. The researcher attempted to describe certain characteristics of a select group of people over the age of ninety living in nursing or retirement homes in four towns in Montana. A personal interview with each person and correspondence with the family provided the information to twenty-seven interview questions. It was wondered if threads of commonalities among these people would emerge during the study.

Major findings of the study were:

1. There are a considerable number of people, ninety years old and older residing in nursing and retirement homes (in the geographic area studied).
2. The population was Caucasian, Protestant, and American-born.
3. People over the age of ninety are able to communicate effectively with others and to remember past events and circumstances.
4. These people are not incapacitated physically and most of them can walk unassisted, hear and see fairly well, and still have bowel and bladder control.
5. Occupations were varied and age of retirement was late (seventy-five to seventy-nine years old).
6. The men's habits included use of alcohol and tobacco; the women's habits did not include either.
7. In many families there tended to be a trend toward longevity with at least one parent and sibling reaching an age of mid-seventies or eighties. There was no family where the interviewee was the only person reaching an aged status. The interviewee was usually born as the first or second child of a large family (mean 6).
8. The circumstances that brought them to their present residence were physical reasons or loneliness and they had been residing there from one to four years.

The researcher believed that much of this information could be used as guidelines in planning health care and nursing home and community services for similar groups.

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CHAPTER I

INTRODUCTION

What medicine has achieved so far in conjunction with social betterment is to enable more people to reach old age. There was no "problem of aging" at the turn of the century when our population of 76 million included only about 3 million older people. Since then, our total population has more than doubled, but the number of older people has multiplied almost seven times.¹

Aging has been thought of as vulnerability to stresses. It may be that our oldest people are extraordinary survivors because of their psychobiological equipment, not only genetic endowment, but acquired abilities to cope with environmental stress.²

The organization of lifelong behavior patterns determines the way individuals adapt to the characteristic problems that face them over the life span. Over time, a style of adaptation develops that is characteristic of the individual.³

¹"Theory and Research in the Biology of Aging," Geriatric Focus Publication by Knoll Pharmaceutical Corp., Orange, N.J.) Oct. 15, 1969, p. 1.

²Working With Older People—A Guide to Practice: Biological, Psychological, and Sociological Aspects of Aging, U. S. Public Health Service Publication No. 1459, Vol. II (Rockville, Md., April, 1970), p. 2.

³James E. Birren, The Psychology of Aging (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1964), p. 47.

Each year many people are living to reach not only the "normal life span" but beyond the seventy-five years. Current gerontologic research indicates that an average life span of 96 years may be attained in the United States and other advanced nations during the 1980's.⁴ According to Dr. Alex Comfort, researcher in gerontology, now a majority of people reach the age range from 70 to 100 years.⁵ Why is it that some live a longer life than others? What are some of the influencing factors?

Interest in this problem was stimulated during the spring of 1970 when Gerald Kaplan, editor-in-chief of the journal, Gerontology, visited this University campus during the nursing home administrators' conferences. A statement made by one of the administrators piqued our interest. She maintained that over half of the residents of her nursing home were over ninety years of age. If this statement were true, then were there many people living beyond ninety rather than an occasional person or was this area of the state for some reason unique?

During the summer of 1970 the researcher visited the nursing home and interviewed these people. There were seven people in this small nursing home (of 30 people) over ninety years of age. The investi-

⁴"Controlled Environments for Old People," Geriatric Focus, March 1970, p. 10.

⁵Alex Comfort, The Process of Aging (New York: Signet Science Library, 1964), p. 30.

gator searched further into the surrounding community and found that in the larger nursing homes (population of 100 to 120) at least 10% or more of the residents were beyond ninety years.

Because of the ability of these people to communicate and recall past events of their life, the researcher decided it would be feasible to extend this study. It was assumed that the abilities to communicate and recall would be found in the aged in other areas of the state. This paper presents the findings of the interviews of sixty people in the Missoula, Bozeman, and Billings areas who were past the age of ninety years.

The Problem

Acknowledging that there exists an enlarging group of people over the age of ninety, the investigator attempted to describe certain characteristics about a selected group of people who were living in nursing or retirement homes.

The Purpose

This study was attempted because of the evidence in the literature of an increasing number of people who are reaching the ninth and tenth decades. Characteristics of these people as a group may have important health implications. If a number of these people could be interviewed and data interpreted, could certain needs be identified important not only to nursing but to the community?

Limitations of This Study

The limitation of using a select group of people restricts the generalizing of findings to other groups out of this age range or out of the geographical area.

Relying on memory for pertinent facts is a limitation of the study in that the interviewee was relied upon as the only source for some information. However, much of the information was documented and verified through acquaintances, relatives, personnel, and social agencies.

The inability to locate ninety-year-olds living in private residences limits the sampling.

CHAPTER II

METHODOLOGY

The survey method of data collection was utilized. Each individual was personally interviewed by the researcher. Predetermined questions were asked about the person's life. If the information was incomplete, the interviewee was asked to supply the researcher with the name of a friend or relative who might have additional information. If the information-source happened to be located in the surrounding area, he was contacted by telephone. Otherwise, a letter (See Appendix A) was sent which explained what the researcher was attempting to accomplish, who had been interviewed, and what additional information was needed to make that particular interview complete. Often it was a sibling of the interviewee who was contacted and was able to send further information. In general, the type of information needed was usually not known by the children of the person interviewed. Many stated that the information contributed was obtained from the family Bible, i.e., recorded births, deaths, baptisms, and diseases.

The researcher included in the letters sent a self-addressed, stamped envelope for the reply. Thirty-five letters were sent and twenty-nine persons replied. If the person's reply indicated that he did not have information of the knowledge sought but named another potential source of information, a letter was then sent to this second person. As many as four different people were contacted for information about some

interviewees. Other times the person interviewed was the only resource and the information sought could not be remembered. If the interviewee had migrated to America while other members of the family had not, family contact in all instances had been lost through the years.

Originally, twenty-nine questions were asked. During the months of interviewing, the question concerning "attitude of being in the nursing or retirement home" was deleted. The investigator did not feel reliable answers were being given. Influencing factors for this decision were verbal reply and affect of reply were often different, and there often existed a lack of privacy, i.e., personnel were in and out of the room during the interview.

A means of verifying age was needed since those over ninety years of age were being described as a group. Those people who had been born in a foreign country usually reported having birth certificates, but, in all cases but one, they were not available for verification. Those born in the United States were born at a time when the practice of recording births had not yet been established by all states or territories. The Social Security Administration was contacted for permission to verify these ages through their agency. One Social Security agent stated that in order to receive benefits some form of age verification was required by their office. This verification might be in the form of a baptismal record, affidavits from acquaintances and family members, or church records. He cited one example where a physician's statement was accepted

for age verification. The physician had approximated the person's age by examination of bone structure. Therefore, the Social Security Administration had established some type of age verification for each person in their files. The Social Security agencies in three Montana cities--Billings, Missoula, and Bozeman--were contacted. It was established through telephone calls that any material the agency had on record was considered to be of a highly confidential nature and could not be released without written permission of the interviewee. A "permission slip" (See Appendix B) was devised and signatures were obtained from forty-seven of the sixty interviewed. Most people were not reluctant to sign but wanted to know exactly what they were signing. Failing eyesight would sometimes necessitate the reading of the permission slip to the person by the investigator.

There was considerable verbal interchange between the investigator and a Social Security agent concerning what signatures were acceptable because of the "competent-incompetent" factor. For purposes of definition, a person was defined as "incompetent" by the agency if he was not signing his own checks and handling his own financial matters. Forty-one of forty-seven ages were finally verified through the Social Security state office in Helena. Information about the other six people was not on file in this state.

In the four cities where the research took place--Bozeman, Missoula, Billings, and Stevensville--both large (100 or more residents)

and small nursing and retirement homes were surveyed. Administrators were personally contacted for permission to interview residents of the institution and include them in the study. An introductory letter introducing the investigator and stating the focus and purpose of the study was given to each administrator (See Appendix C). This letter was signed by the Director of the School of Nursing, Montana State University. All administrators contacted were cooperative and gave permission for utilization of the institution in the study. In one institution, it was decided by the administrator after three interviews that requesting an interviewee to sign a "permission slip" was too upsetting. Therefore, in this particular home, eight signatures were not obtained and age verification was not possible except through charts and personnel.

Population Studied

The person interviewed had to be at least ninety years and one day old. He had to be able to carry on a logical conversation with the interviewer. "Logical" was defined as being in order, i.e., events described and ages stated were given in a sequence of time and place that seemed to be orderly. If the interviewer began an interview and the answers given by the interviewee did not fit in time and place the questions asked, the interview was terminated and the person was not included in the study. If the interviewee seemed to give logical responses except for one or two inconsistencies, these questions were then asked

to a member of the family for verification or refutation. For example, one ninety-six year old lady answered all the interview questions including the age of her father at time of death in a seemingly reasonable manner. When asked the age of her mother at time of death, she replied that her mother was still living. She further stated that since she (the interviewee) was ninety-six years old, her mother must be at least in her hundreds. This did not seem likely to the interviewer so further checking was attempted through the daughter. She stated the age of her grandmother at time of death and explained that the interviewee had been referring to her (the daughter) as her mother for the past ten years. Other answers obtained from the interviewee were told to the daughter and she verified them as correct.

Before an interview, the age and birthdate were copied from the person's chart and the place of birth (if listed). The interviewee was then asked his age and date of birth. If this information correlated with the chart information, orientation of the person was assumed. Some persons stated that they could not remember their exact age but knew that they were over ninety. Some stated that the information on the chart was incorrect and would verbally correct it as to day, month, or year. It was not uncommon to find incorrect data on the chart concerning age and other information.

The opinion of registered nurses in the different institutions was requested concerning the feasibility of interviewing each person.

It was noted that there were several in each institution whom the nurses did not identify as potential interviewees who were interviewed and did very well. Perhaps a reason for this could be the phenomena that occurs in many elderly persons concerning the ability to remember past events and not present or recent events.⁶

No interview was terminated because of inability to communicate. Of those whose hearing was "poor," none were completely deaf. If the interviewer found it necessary to repeat each question several times, the oral question was occasionally supplemented with written explanation.

Sixty persons were interviewed from three different areas of the state. The population included forty women and twenty men. Seventeen women and five men were from the Missoula area; twelve women and seven men from the Bozeman area; and eleven women and eight men from the Billings area. All those interviewed were presently residing at a nursing home or retirement home. Included in the study were four institutions in Missoula, three in Bozeman, and two in Billings. The researcher was not able to interview all those over ninety in the community. In some instances, a group of several persons residing in a nursing home was identified and not included in the study because of the limited amount

⁶Robert N. Butler, "The Life Review: An Interpretation of Reminiscence in The Aged," Early Thoughts on Old Age, ed. Robert Kastenbaum (New York: Springer Publishing Co., 1964), pp. 265, 273.

of time spent in that community. Although it would have been desirable to include in the study a number of ninety year olds living in their own homes and in their children's homes, it was impossible to obtain the information of their whereabouts. This information could have possibly been supplied by Social Security, but because of the confidentiality of their files they were not able to release this information to the researcher.

CHAPTER III

REVIEW OF LITERATURE

The bibliography for this paper is only a sampling and no claim is made for its being exhaustive. The amount of published research, while seriously lacking in many areas, is actually great. One serious lack is that samplings are usually referred to as "over the age of sixty-five years." Samplings of the population as a group over ninety years or over eighty years are rare. Rather, the age of sixty-five years has been arbitrarily designated as "old age" and those beyond this point designated as "the aged." It is ironic that people in this country are categorized as members of a special problem group when they reach the magic age of sixty-five. For aging begins even before birth, and its attributes and effects cannot be explained by as simple a concept as the advent of the 65th birthday.⁷

Although sixty-five was set as an arbitrary age limit to determine old age, it was not chosen because any distinct biological or sociological changes occurred exactly sixty-five years after birth.⁸

Bibliographic references cited are those with researched vari-

⁷"Controlled Environments for 'Old People'," Geriatric Focus IX, 3 (March, 1970), 1.

⁸Wayland J. Hayes and Rena Gazaway, Human Relations In Nursing (Philadelphia: W. B. Saunders, 1959), p. 156.

ables similar to the variables studied by the author.

Sex

The disproportionate number of older women results from their more favorable survival record throughout the life cycle. The older women are expected to outnumber the men by 3,300,000 in 1975.⁹

In the Soviet Study, women comprised 73 to 75 percent of the longevous population. This was attributed not only to greater female life expectancy but to the heavy attrition of men in the two World Wars.¹⁰

A study reported in Geriatric Focus revealed that increases in average longevity for men have slackened.¹¹ For example, male life expectancy at age sixty-five for men in 1967 was thirteen years. Since 1960 the life expectancy of men at ages fifty to seventy has remained practically unchanged. Female expectation of life at age sixty-five has risen from 12.2 years (1900-02) to 16.4 years (1967). In the first half of this century, the increase for women was more than twice that for men. Since then, the gain for women has been

⁹"The Population of Elders," Statistical Bulletin, XXXXVI (November 1965), 1-3.

¹⁰"Lifetime Health and Activity Levels are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3.

¹¹"Report on Health Characteristics of the Elderly, Their Death Rates and Average Life Expectancy," Geriatric Focus, VII, 20 (December 1, 1968), 3.

1.4 years, that for men has been negligible. As a result of these trends, the sex related difference in longevity has widened.

For women, not until age seventy-five are the odds against their living to celebrate another ten more birthdays. Men reach this stage almost six years earlier in life.

Generally, the probabilities of a white male surviving to older ages is increasing in some countries while simultaneously decreasing in others. Corresponding probabilities for females continued to increase in all countries but one where it leveled after an initial rise.¹²

The expectation of life at age forty-five is greater for women than for men in every country, except Guatemala, where it is the same for both sexes. The advantage enjoyed by women ranges from less than one year in Ceylon and Greenland to more than five years in the United States, the Soviet Union, and France.¹³

The extent of prolonging life at the older ages for men has

¹²"Longevity at 65--International Trends," Statistical Bulletin LI (July 1970), 4-6.

¹³"International Gains in Longevity After Midlife," Statistical Bulletin, VI (April 1964), 1-3.

been negligible as compared with that for women. Expectation of life among white men at age sixty-five has only shown a slight change since 1949-51. Older women have not only had the better longevity record, but their gains have been greater in recent years. Recently, the rise for females has been 0.8 years per decade, where that for males has been negligible.¹⁴

In Birren's book, he notes that as both sexes live longer, women tend to gain in life span more than do men. At present (1964) women have a life expectancy at birth that is about six to seven years longer than men's.¹⁵ One of the persistent characteristics of mortality data is the fact that women outlive men.¹⁶

As a result of longevity trends since 1900, the difference in longevity between the sexes has widened.¹⁷ It is assumed that in the years to come male mortality will remain at its recent levels but that female mortality will continue to decrease, although at a slower pace

¹⁴"Diverse Longevity Trends for Older Men and Women," Statistical Bulletin, VX (October 1964), 3-6.

¹⁵James E. Birren, The Psychology of Aging (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964), p. 77.

¹⁶Ibid., p. 188.

¹⁷"Progress in Longevity Since 1850", Statistical Bulletin, XXXIV (July 1963), 1-3.

than in the past.¹⁸

Marital Status

Approximately one-tenth of those studied were single (never married), a little less than half were married and living with spouse, while about two-fifths were widowed or divorced, according to a study by Pihlblad and McNamara.¹⁹ The proportion widowed was approximately twice as great for women as for men, thirty percent among men as compared with fifty-seven percent for women.

In a study by Harold E. Smith, the extent of widowhood among aged females was two and one-half to three times that for aged males.²⁰ Ninety-three percent of both males and females reported having been married at one time compared to seven percent who spent all their lives as single persons.

In the Soviet study, nearly all the aged were married or widowed.

¹⁸"More Married Couples Living to Advanced Ages," Statistical Bulletin, IL (June 1968), 9-11.

¹⁹C. Terence Pihlblad and Robert L. McNamara, "Social Adjustment of Elderly People in Three Small Towns," Older People and Their Social Worlds: The Subculture of the Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 59.

²⁰Harold E. Smith, "Family Interaction Patterns of the Aged: A Review," Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 146.

There were many more widows (92.7 percent) than widowers (54.6 percent) as the latter often remarried.²¹

According to one report, the proportion of men who are widowers is about thirty-four percent at ages seventy-five and older. Among women, the corresponding proportions are much higher—about 70.5 percent.²²

Ninety-five percent of the males and eighty percent of the females had wed at least once in the British study.²³

Education

In the British study, about eighty-two percent of the males and seventy-eight percent of the females were still in school at age 13. "They had more formal education than the general population at that time"²⁴

In a study of two hundred two "older people" living in non-institutional settings in Minneapolis and St. Paul, the healthy were

²¹"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3.

²²"The Population of Elders," Statistical Bulletin, XXXVI (November 1965), 1-3.

²³"Studies of Longevous Populations in the U. S., Soviet Union, and Great Britain Are Reported," Geriatric Focus, V, 13 (September 15, 1966), 2-3.

²⁴Ibid.

somewhat more likely to be men than women, middle class rather than lower class, better educated rather than poorly educated, partly employed rather than fully retired.²⁵

About one tenth of the older people had completed less than five grades in Pihlblad and McNamara's study. About half of them had finished the eighth grade and almost exactly one third had attended high school with about half of these completing a high school education. Eleven persons (seven percent) claimed to have attended college. This was an unexpectedly large proportion considering that even the younger persons in the sample must have received their education forty-five to fifty years ago when a high school education and college attendance were much more rare than at present.²⁶

A Canadian study of one hundred fifty-five war veterans with a mean age of 82.7 years revealed the mean number of years of schooling was 7.04.²⁷

²⁵Arnold Rose, "Physical Health and Mental Outlook Among the Aging," Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 208.

²⁶Pihlblad and McNamara, op. cit., p. 63.

²⁷Harry Konoff, Ph.D. and Margaret Kennedy, M.A., Memory and Perceptual Functioning in Octogenarians and Nonagenarians in the Community, (7th Congress of the International Association of Gerontology; Vienna, Austria, June 27-July 3, 1966), p. 328.

Height

It is common that a slight but perceptible decrease in human stature (height) occurs in old age. In this investigation, the subjects were one hundred forty females from thirty to ninety-four years of age. Arm span was used as the criterion for determining change in stature over the years. A statistically significant progressive shrinking with age was found, about half an inch per decade after maturity. This trend toward reduced stature in older women is in agreement with other height surveys for females in Europe and the United States.²⁸

Occupation

During the past decade the Soviet Union has conducted a medical study of all citizens over age eighty under the direction of the Institute of Gerontology of the USSR Academy of Medical Sciences.²⁹

Over a period of four years a total of 40,000 superannuated individuals were examined. Their age was verified by official records and other documents, careful questioning regarding their recollection of historical events, etc.

²⁸"Decline in Height of Females About Half Inch Per Decade," Geriatric Focus, VIII, 5 (March 1, 1969), 3.

²⁹"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3

and small nursing and retirement homes were surveyed. Administrators were personally contacted for permission to interview residents of the institution and include them in the study. An introductory letter introducing the investigator and stating the focus and purpose of the study was given to each administrator (See Appendix C). This letter was signed by the Director of the School of Nursing, Montana State University. All administrators contacted were cooperative and gave permission for utilization of the institution in the study. In one institution, it was decided by the administrator after three interviews that requesting an interviewee to sign a "permission slip" was too upsetting. Therefore, in this particular home, eight signatures were not obtained and age verification was not possible except through charts and personnel.

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ables similar to the variables studied by the author.

Sex

The disproportionate number of older women results from their more favorable survival record throughout the life cycle. The older women are expected to outnumber the men by 3,300,000 in 1975.⁹

In the Soviet Study, women comprised 73 to 75 percent of the longevous population. This was attributed not only to greater female life expectancy but to the heavy attrition of men in the two World Wars.¹⁰

A study reported in Geriatric Focus revealed that increases in average longevity for men have slackened.¹¹ For example, male life expectancy at age sixty-five for men in 1967 was thirteen years. Since 1960 the life expectancy of men at ages fifty to seventy has remained practically unchanged. Female expectation of life at age sixty-five has risen from 12.2 years (1900-02) to 16.4 years (1967). In the first half of this century, the increase for women was more than twice that for men. Since then, the gain for women has been

⁹"The Population of Elders," Statistical Bulletin, XXXXVI (November 1965), 1-3.

¹⁰"Lifetime Health and Activity Levels are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3.

¹¹"Report on Health Characteristics of the Elderly, Their Death Rates and Average Life Expectancy," Geriatric Focus, VII, 20 (December 1, 1968), 3.

1.4 years, that for men has been negligible. As a result of these trends, the sex related difference in longevity has widened.

For women, not until age seventy-five are the odds against their living to celebrate another ten more birthdays. Men reach this stage almost six years earlier in life.

Generally, the probabilities of a white male surviving to older ages is increasing in some countries while simultaneously decreasing in others. Corresponding probabilities for females continued to increase in all countries but one where it leveled after an initial rise.¹²

The expectation of life at age forty-five is greater for women than for men in every country, except Guatemala, where it is the same for both sexes. The advantage enjoyed by women ranges from less than one year in Ceylon and Greenland to more than five years in the United States, the Soviet Union, and France.¹³

The extent of prolonging life at the older ages for men has

¹²"Longevity at 65--International Trends," Statistical Bulletin LI (July 1970), 4-6.

¹³"International Gains in Longevity After Midlife," Statistical Bulletin, VI (April 1964), 1-3.

been negligible as compared with that for women. Expectation of life among white men at age sixty-five has only shown a slight change since 1949-51. Older women have not only had the better longevity record, but their gains have been greater in recent years. Recently, the rise for females has been 0.8 years per decade, where that for males has been negligible.¹⁴

In Birren's book, he notes that as both sexes live longer, women tend to gain in life span more than do men. At present (1964) women have a life expectancy at birth that is about six to seven years longer than men's.¹⁵ One of the persistent characteristics of mortality data is the fact that women outlive men.¹⁶

As a result of longevity trends since 1900, the difference in longevity between the sexes has widened.¹⁷ It is assumed that in the years to come male mortality will remain at its recent levels but that female mortality will continue to decrease, although at a slower pace

¹⁴"Diverse Longevity Trends for Older Men and Women," Statistical Bulletin, VX (October 1964), 3-6.

¹⁵James E. Birren, The Psychology of Aging (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964), p. 77.

¹⁶Ibid., p. 188.

¹⁷"Progress in Longevity Since 1850", Statistical Bulletin, XXXIV (July 1963), 1-3.

than in the past.¹⁸

Marital Status

Approximately one-tenth of those studied were single (never married), a little less than half were married and living with spouse, while about two-fifths were widowed or divorced, according to a study by Pihlblad and McNamara.¹⁹ The proportion widowed was approximately twice as great for women as for men, thirty percent among men as compared with fifty-seven percent for women.

In a study by Harold E. Smith, the extent of widowhood among aged females was two and one-half to three times that for aged males.²⁰ Ninety-three percent of both males and females reported having been married at one time compared to seven percent who spent all their lives as single persons.

In the Soviet study, nearly all the aged were married or widowed.

¹⁸"More Married Couples Living to Advanced Ages," Statistical Bulletin, IL (June 1968), 9-11.

¹⁹C. Terence Pihlblad and Robert L. McNamara, "Social Adjustment of Elderly People in Three Small Towns," Older People and Their Social Worlds: The Subculture of the Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 59.

²⁰Harold E. Smith, "Family Interaction Patterns of the Aged: A Review," Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 146.

There were many more widows (92.7 percent) than widowers (54.6 percent) as the latter often remarried.²¹

According to one report, the proportion of men who are widowers is about thirty-four percent at ages seventy-five and older. Among women, the corresponding proportions are much higher—about 70.5 percent.²²

Ninety-five percent of the males and eighty percent of the females had wed at least once in the British study.²³

Education

In the British study, about eighty-two percent of the males and seventy-eight percent of the females were still in school at age 13. "They had more formal education than the general population at that time"²⁴

In a study of two hundred two "older people" living in non-institutional settings in Minneapolis and St. Paul, the healthy were

²¹"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3.

²²"The Population of Elders," Statistical Bulletin, XXXVI (November 1965), 1-3.

²³"Studies of Longevous Populations in the U. S., Soviet Union, and Great Britain Are Reported," Geriatric Focus, V, 13 (September 15, 1966), 2-3.

²⁴Ibid.

somewhat more likely to be men than women, middle class rather than lower class, better educated rather than poorly educated, partly employed rather than fully retired.²⁵

About one tenth of the older people had completed less than five grades in Pihlblad and McNamara's study. About half of them had finished the eighth grade and almost exactly one third had attended high school with about half of these completing a high school education. Eleven persons (seven percent) claimed to have attended college. This was an unexpectedly large proportion considering that even the younger persons in the sample must have received their education forty-five to fifty years ago when a high school education and college attendance were much more rare than at present.²⁶

A Canadian study of one hundred fifty-five war veterans with a mean age of 82.7 years revealed the mean number of years of schooling was 7.04.²⁷

²⁵Arnold Rose, "Physical Health and Mental Outlook Among the Aging," Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 208.

²⁶Pihlblad and McNamara, op. cit., p. 63.

²⁷Harry Konoff, Ph.D. and Margaret Kennedy, M.A., Memory and Perceptual Functioning in Octogenarians and Nonagenarians in the Community, (7th Congress of the International Association of Gerontology; Vienna, Austria, June 27-July 3, 1966), p. 328.

Height

It is common that a slight but perceptible decrease in human stature (height) occurs in old age. In this investigation, the subjects were one hundred forty females from thirty to ninety-four years of age. Arm span was used as the criterion for determining change in stature over the years. A statistically significant progressive shrinking with age was found, about half an inch per decade after maturity. This trend toward reduced stature in older women is in agreement with other height surveys for females in Europe and the United States.²⁸

Occupation

During the past decade the Soviet Union has conducted a medical study of all citizens over age eighty under the direction of the Institute of Gerontology of the USSR Academy of Medical Sciences.²⁹

Over a period of four years a total of 40,000 superannuated individuals were examined. Their age was verified by official records and other documents, careful questioning regarding their recollection of historical events, etc.

²⁸"Decline in Height of Females About Half Inch Per Decade," Geriatric Focus, VIII, 5 (March 1, 1969), 3.

²⁹"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3

Information from 27,181 persons has been analyzed (19,425 aged 80-89), 7,341 aged 90-99, and 415 aged 100 or over. Seventy percent of those born in the last century spent most of their life in rural surroundings.

It cannot be sheer coincidence that longevity is characteristic of rural inhabitants, mainly manual workers who started to work in their early teens and still preserve a capacity for work, though on a reduced scale, in the concluding years of life (as stated in the Soviet study).³⁰

Dr. James S. Skinner, after an extensive review of the literature, reported the following conclusions in the relationship between physical exercise and aging:

1. There is little evidence to suggest that physical exercise has a deleterious effect on healthy persons of any age.
2. No unequivocal relationship between physical activity and longevity or general mortality has been proved.
3. Increased physical activity probably does not affect rate of aging.
4. The functional deterioration usually associated with advanc-

³⁰Ibid.

cing age may be delayed in persons who are habitually active.³¹

Retirement

There has been an increase in compulsory and voluntary retirement and a corresponding decline in self-employed occupations (at which a healthy older person could work as long as he wished past the age of sixty-five).³²

But, Cogwill notes that a high proportion of males sixty-five and over are still active in the labor force.³³ In many counties in the western area of the nine-state region, more than half of the aged males are still in the labor force. This tendency appears to be greatest in the cattle raising or wheat raising sections.

Longevous subjects in the British study tended to work much longer before retirement.³⁴ Some twenty-seven of the forty-one men did not retire until age seventy or later; two were still working at ages

³¹"No Evidence That Physical Exercises Reduces Fatal Heart Disease or Increases Longevity," Geriatric Focus, IX, 1 (January 1970), 2.

³²Arnold M. Rose, op. cit., p. 5.

³³Donald O. Cowgill, "The Demography of Aging in the Midwest," Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 295.

³⁴"Studies of Longevous Populations in The U.S., Soviet Union, and Great Britain Are Reported," Geriatric Focus, V, 13 (September 15, 1966), 2-3.

eighty-six and ninety respectively.

Hearing and Sight

In Dr. Wigzell's study,³⁵ thirty-one persons interviewed were in Eventide Homes (residential care facilities for the aged or infirm in Scotland). Wigzell reported 41.94 percent of the Eventide Home population had good vision while 58.06 percent had impaired vision.

In the Scotland study, those in the Eventide Home rated 22.22 percent with normal hearing, 55.56 percent moderately deaf, and 22.22 percent very deaf.³⁶

In the Soviet study in Georgia, Russia, more than fifty percent of the subjects had retained normal sight and hearing.³⁷

A study of the decline in sensory ability in two hundred seventy male and female centenarians revealed that only 5.2 percent were blind and only 1.9 percent were completely deaf (Reported in "Gerontologia Clinica" by Dr. Belle Boone Beard).³⁸ About 36.3 percent of the super-

³⁵F. W. Wigzell, "The Functional State of Nonagenarians," Geriatrics, XXV, 9 (September 1970), 170.

³⁶Ibid.

³⁷"Studies of Longevous Populations in the U. S., Soviet Union, and Great Britain Are Reported," loc. cit.

³⁸"Total Loss of Sight, Hearing Unusual Even After Age 100," Geriatric Focus, IX, 1 (January, 1970), 5.

annuated subjects rated their sight "good" and 30.2 percent similarly rated their hearing. Those reporting their sight as good included more men than women. More than half used spectacles, but with or without correction they were able to read, watch TV, and do needlework.

About 58.5 percent of the subjects reported fair or poor vision. Among them were slightly more of the women than of the men.

The 67.9 percent who reported only "fair or poor" hearing included a slightly larger proportion of the male subjects.

The data was obtained in interviews with the subjects and from their responses to a list of one hundred four physical functions commonly performed by normal people in daily life.

Continency

Dr. James L. Newman at the International Gerontological Congress reported on urinary incontinence among elderly patients in hospitals and other institutions. He proposes rather than usually attributing incontinence to physical or mental disease, damage, or deterioration, in most instances the physician's "explanation" explains nothing. The cause, in his opinion, is the inability of older persons to adapt to an institutional environment and their breakdown under stresses "unknowingly" imposed upon them by physicians and other personnel.³⁹

³⁹"Hospital Stress Blamed for Aged Incontinence," Geriatric Focus, IX, 1 (January 1970), 1, 10.

Of those in the Eventide Home in Scotland, 83.87 percent were able to successfully use the lavatory.

Ambulation

In Dr. Wigzell's study, 12.9 percent of the population had unrestricted mobility while another 58.06 percent fell into the category, "Inside and limited outside"; 29.03 percent had inside mobility only; and none were bedfast.⁴¹

Brockington and Lempert found useful mobility in seventy percent of the subjects reviewed by them in Stockport.⁴²

In interviewing two different groups, ages sixty-five to eighty-five years old, Arnold Rose asked the question, "Are you able to get out by yourself without much difficulty?" Eighty-five percent responded, "Yes," and five percent responded, "No."⁴³

Diseases

In the Soviet study, past history of diseases was found to play

⁴⁰Wigzell, loc. cit.

⁴¹Ibid.

⁴²C. F. Brockington and S. M. Lempert, "The Social Needs of The Over 80's," (The Stockport Survey: Manchester, 1966).

⁴³Arnold M. Rose, "Group Consciousness Among the Aging, Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 30.

a significant role in the current health status. Subjects over age ninety had less illness than those age eighty to eighty-nine, women were more apt than men to have had serious illness in early life, and persons with a history of disease in infancy were in poorer health than those who developed diseases later.⁴⁴

Fractures

A study of thirty-five members of two aged clubs with mean ages of 74.5 years and 67.4 years with respondents being mostly female found the most troublesome health problem for these respondents was fractures.⁴⁵

Of the eighty-one nonagenarians interviewed in Wigzell's study in Scotland, 11.11 percent had suffered fractured femurs within the past five years (males or females not specified).

Place of Birth

In this study, one hundred forty-nine subjects of the Spanish-

⁴⁴"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3.

⁴⁵Rodney M. Coe and Elizabeth Barnhill, "Social Participation and Health of The Aged," Older People and Their Social Worlds: The Subculture of the Aging, eds. Arnold M. Rose and Warren A Peterson (Philadelphia: F. A. Davis Company, 1965), p. 217.

⁴⁶Wigzell, loc. cit.

American War, average age eighty-two, attended a VA geriatric clinic and participated in an interdisciplinary aging study in Boston.⁴⁷ The group was predominantly New England-born. Seventy-three percent were United States-born; eight percent were born in Canada. Of those born abroad, thirty percent were from Ireland, twenty percent from England and Scotland, and fifteen percent from the Scandanavian countries.

Scandanavian and English-speaking countries had the lowest mortality rates among foreign countries.

Cowgill writes that while it is now well known that the older portion of the national population is increasing more rapidly than the total and thus bringing about an aging trend, it is not yet fully appreciated that there are very marked territorial or ecological variations in this pattern.⁴⁸

The Midwest is the region of the country where the aging trend has progressed farthest. The Midwest is rivaled in this respect only by New England. The Midwest is defined to include nine states—the Corn Belt and the Wheat Belt, Iowa, Illinois, Missouri, Kansas, Minnesota, North Dakota, South Dakota, Nebraska, and Wisconsin.

⁴⁷ Charles L. Rose, "Social Correlates of Longevity," New Thoughts on Old Age, ed. Robert Kastenbaum (New York: Springer Publishing Co., Inc., 1964), p. 77

⁴⁸ Cowgill, op. cit., p. 275.

Iowa, Missouri, and Nebraska rank first, second and third, respectively, among all of the states in the United States in the percentage of their populations which is sixty-five and over. Along with Kansas which ranks eighth, these states appear to form a pocket in the heart of the nation where there is the maximum concentration of old folks.

The same areas which accumulate high proportions of persons sixty-five and over also accumulate or retain high proportions seventy-five and over.⁴⁹

It is probable that scattered cases of counties with exceedingly high aging ratios may be reflecting the location of institutions--nursing homes or hospitals. In counties with very small populations a few extra persons in such institutions can produce considerable change in the ratio and the populations of such institutions tend to be older than a normal non-institutional population.⁵⁰

The proportionate size of the aging population is uneven among the states, with the highest proportion in the New England and West North Central states and lower proportions in the South, West, and eastern industrial areas.⁵¹ Three states (Iowa, Missouri, and Neb-

⁴⁹Cowgill, op. cit., p. 291.

⁵⁰Ibid., p. 293.

⁵¹Philblad and McNamara, op. cit., p. 49.

raska) rank above all others in the proportion of the elderly in their populations.

A study by the U. S. Public Health Service revealed that the geographic area in which we live appears to play a significant role in determining how long we live.⁵² Data collected by the U. S. Public Health Service and other investigators reveal substantial and persistent variance in the death rates of various states and of different subsections in the same state.

The fifteen highest-risk areas are almost all east of the Mississippi River. The fifteen lowest risk areas lie almost entirely west of the Mississippi.

Geographic differences in the death rates of non-whites are similar to those of whites. Migration does not appear to have a marked effect on the risk of dying. Age-adjusted death rates for Canada display a similar geographic pattern.

Mobility

Of three villages utilized in a study by Pihlblad and McNamara, it was found that the older residents of these villages were predominantly white and Protestant, have rural backgrounds, and have lived

⁵²"How Long You Live Depends on the Area Where You Live," Geriatric Focus, VII, 16 (October 1, 1968), 3

most of their lives in the immediate locality.⁵³ These findings were similar to findings in other villages in Missouri and midwestern states. The "older residents" ranged in age from sixty-five to eighty "and over."

Circumstances That Influence Change of Residence

A reversal of roles is likely a characteristic of the interaction patterns between the dependent aged and their adult children, i.e., children tend to become like parents to their dependent elders, and elders become like offspring to their children.⁵⁴

Conversely, in a study of homes for the aged, the opinions of aged parents with reference to receiving help or advice concerning their present living arrangements indicate that seventy-one percent made their own decision regarding where to live.⁵⁵

A medico-social investigation was conducted in a large home where admission standards required that the applicant be more than seventy years old, relatively self-sufficient, and free of severe pathology. The subjects were three hundred sixty-two residents with

⁵³Pihlblad and McNamara, op. cit., p. 53

⁵⁴Smith, op. cit., p. 153.

⁵⁵William P. Hawkinson, "Wish, expectancy, and Practice in the Interaction of Generations," Older People and Their Social Worlds: The Subculture of the Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia: F. A. Davis Company, 1965), p. 188.

an average age of eighty-two years. An inquiry was undertaken among the two hundred eighty-three "physically fit" subjects to determine the reason for their admission to the home. Questioning of the subjects and their kin elicited the following causes: economic, 22.9 percent of the subjects; family problems, 16.5 percent; lack of housing, 26.5 percent; solitude, 48 percent; and need for assistance, 50.5 percent.⁵⁶

Number of Children Born to the Population Studied

In one article, some eighty-two percent of the elderly have at least one surviving child. Most have three or more.⁵⁷

In Pihlblad and McNamara's study, one fifth (twenty percent) had no living children; one fourth (twenty-five percent) had two children; one eighth (12.5 percent) had three children; one tenth (ten percent) had four children; and twelve percent had five or more children. The average number of living children per married individual was just over two.⁵⁸

Conversely, in the Soviet study, women married young and tended

⁵⁶"Study Reveals Social and Psychological Factors Keep Physically Fit People in Homes for Aged," Geriatric Focus, VIII, 7 (April 1, 1969), 2.

⁵⁷"Speaker Attacks 'Stereotyped and Outmoded' Views About Filial Responsibilities to Aged," Geriatric Focus, IX, 3 (March, 1970).

⁵⁸Pihlblad and McNamara, op. cit., p. 65.

to have large families.⁵⁹ The average number of children was 6.4 for women age eighty to eighty-nine and 7.5 for older women.

Twenty-one percent of the subjects' children (excluding still-born, step, and adopted children) had died.⁶⁰ Twelve percent died before reaching age six.

Order of Birth in the Family

There is some evidence from studies of neonatal mortality and genealogy that maternal age at birth influences longevity of offspring.⁶¹ Therefore, the older sibling lives longer because his mother is younger when she gives birth to him.⁶²

A large number of subjects in Rose's study were senior in birth order--forty-four percent were in first or second position.⁶³ A relationship between longevity and senior sibling order was also found

⁵⁹"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," Geriatric Focus, VIII, 16 (October 1, 1969), 2-3.

⁶⁰Charles L. Rose, op. cit., p. 79.

⁶¹E. Jalavisto, "A Study of Scandanavian Genealogies. In P. Close, The Genetics of Longevity," Journal of Gerontology, 7 (1952), 126-128.

⁶²J. Yerushalmy, "Neonatal Mortality by Order of Birth and Age of Patents," American Journal of Hygiene, CXXXVIII, 28, 244.

⁶³Charles L. Rose, op. cit., p. 80.

by Bell.⁶⁴

In the British study, a great many of the subjects came early in birth order.

They were born when their parents were young, and reared while there were not so many other children to drain family resources, therefore probably started life with a somewhat better change.⁶⁵

Birren found that there appeared to be some evidence of a relationship between longevity of offspring and the age of the parents. That is, the last born will tend to live less long than will the first born of a series of offspring.⁶⁶

Number of Siblings

The longevous patients usually came from large families.⁶⁷ A family of five or more siblings was reported by sixty-one percent of the male subjects and eighty-three percent of the female subjects in the British study. A family of eight or more siblings was reported by twenty-seven percent of the males and forty-one percent of the females.

⁶⁴A. G. Bell, "The Duration of Life and Conditions Associated With Longevity--A Study of the Hyde Genealogy," (Genealogical Record Office, Washington, D. C., 1918).

⁶⁵"Studies of Longevous Populations in the U. S., Soviet Union, and Great Britain Are Reported," loc. cit.

⁶⁶Birren, op. cit., p. 65.

⁶⁷"Studies of Longevous Populations in the U. S., Soviet Union, and Great Britain Are Reported," loc. cit.

The subjects in Rose's study came from fairly large families.⁶⁸ More than one half of the families (fifty-four percent) had at least six children. Three percent of the subjects were only children; thirty percent of the families had eight or more children.

At the time of the interview when the subjects were on the average eighty-two years of age, only seventeen percent of the siblings were still alive.⁶⁹ Their mediocre longevity is also shown by the fact that fifty percent died before reaching age sixty-five. In fact, seventeen percent died before reaching age six. As a group, then, the siblings did not share the longevity characteristics of the subjects.

Heredity

According to Dr. Alex Comfort, persons living to extreme old age "owe more to their parents than to medical science."⁷⁰ He noted that people may be saddled at birth with a "single heritable predisposition" to die of cancer, heart disease, or another specific ailment.

A new study suggests that survival into old age is related to "biological eliteness" and the inborn ability to resist many highly mortal diseases (Dr. Bernard S. Linn and associates). It is their

⁶⁸Charles L. Rose, op. cit., p. 80.

⁶⁹Ibid., pp. 80-82.

⁷⁰"Survival to Extreme Old Age Limited to 'Biologically Elite!'," Geriatric Focus, VII, 4 (February 15, 1968), 3.

belief that certain individuals are programmed, through heredity, to live to a ripe old age. They concluded that such persons are born tough and endowed with a sound body. They may form a separate population from the general aging population who die from leading killer diseases. In effect, longevity may be related to biological eliteness than to mere survivorship into extreme age.

In Rose's study, fathers' average age at death was seventy and the corresponding figure for the mother was seventy-two. The longevity of the parents is remarkable since it substantially exceeded the longevity of their generation. For 1900-1901, the earliest years for which life tables are available, the expected longevity at birth was forty-eight. The subjects' parents were born some forty years earlier when life expectancy was even lower.⁷¹

In a seven generational study, Alexander Graham Bell also found a relationship between longevity of parent and offspring, with the relationship being stronger when the longevous parent was the father.⁷²

A Soviet study in Georgia, Russia, in which 15,000 individuals over age eighty were examined concluded that some seventy percent of the parents, siblings, and other close relatives of the subjects lived

⁷¹Charles L. Rose, op. cit., p. 78

⁷²A. G. Bell, op. cit.

to a ripe old age.⁷³

In a British longevity study of forty-one males (average age eighty-eight) and fifty-nine females (average age ninety), the mean age of the subjects' parents at death tended to be above life expectancy at the time. Both parents lived past seventy in about thirty-five percent of the cases.⁷⁴

Conversely, genetic predetermination did not appear to be an important factor in the Soviet study. Fewer than half of the persons investigated had blood relatives who had reached extreme old age. The author proposed that superior adaptive and regulatory capacity may be the answer.⁷⁵

⁷³"Studies of Longevous Populations in the U. S., Soviet Union, and Great Britain Are Reported," op. cit.

⁷⁴Ibid.

⁷⁵"Lifetime Health and Activity Levels Are Key to Long Term Survival, Soviet Study Reveals," loc. cit.

CHAPTER IV

ANALYSIS OF DATA

The population studied was Caucasian, consisting of forty females and twenty males above ninety years of age.

The researcher was unable to obtain information concerning the ninety-year-olds living at private residences. Due to limited time and lack of information, the entire ninety-year-old (and older) population in each city was not contacted.

Age

The age range (See Table 1) was from ninety years and one month to one hundred one years and two months. The ages from ninety through ninety-two included 53 percent of the total population. This included twenty of the females (50 percent) and twelve of the males (60 percent).

The Montana State Social Security Office verified ages for 68 percent (forty-one people) of the population. Forty-seven permission slips were signed granting the interviewer the privilege to request the verification. Six persons' ages were not on file in this state.

Marital Status

Thirty-nine of the females (97.5 percent) were widowed. One female was married.

Fifteen of the males (75 percent) were widowed; three males were married; and two males had never married.

TABLE 1. AGE

	MALE	FEMALE
90	4	8
91	4	6
92	4	6
93	2	6
94	1	2
95	1	4
96	1	4
97	2	3
98		
99		
100		
101	1	1
	20	40

Concerning the three married males and one married female, the female and one of the males were married to each other and both were the original partners in the marriage. Another male was still married to the original partner but said they "had not lived together for thirty years." The third married male had remarried three years previous (after being widowed) at the age of eighty-eight years.

Totally ninety percent of the population had a marital status of "widowed."

Religion

Eighty-five percent of the interviewees (See Figure 1) stated their religion as Protestant or named one of the Protestant denominations. The denomination with the highest representation was Methodist (18 percent). Eight percent were Catholic.

Noteworthy is the Methodist influence of Brother Van among the pioneers and the establishment of the Deaconess Hospitals by the Methodists.

Education

It was difficult to determine the extent of education received by each person in years. However, most were able to report grades completed (See Table 2). Several persons had not finished high school, but had attended college.

In general, more females finished completion of the eighth grade

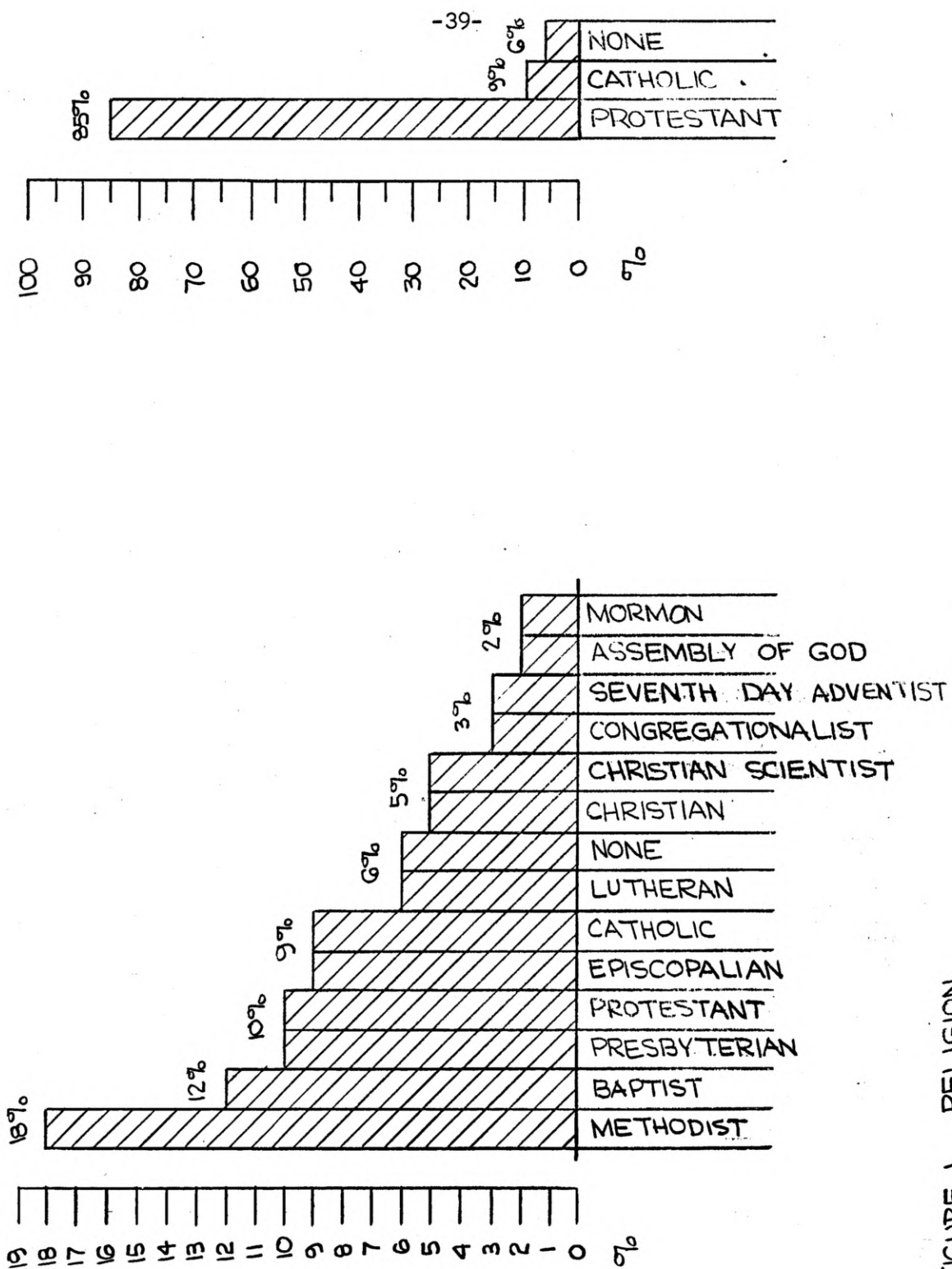


FIGURE 1. RELIGION

TABLE 2. EDUCATION

GRADE	MALE	FEMALE
COLLEGE	20%	18%
HIGH SCHOOL	5%	22%
11		
10	5%	
9	5%	7%
8	10%	23%
7	15%	
6	10%	8%
5	5%	10%
4	10%	6%
3		3%
2	5%	
1 OR LESS	5%	
UNKNOWN	5%	3%

and high school than the males. However, college was attended by 20 percent of the males and 18 percent of the females.

Totally, 38 percent of the population had some college education.

Height and Weight

The height of four persons was obtained in a sitting or lying position because of an inability to stand. If the person was unable to stand on a scale, the last recorded weight was copied from the chart.

The person was asked his height and then measured. Many expressed surprise that the actual height was from one half to three inches less than the stated height.

Proudfit and Robinson's height-weight chart was utilized in describing "normalcy" ranges.⁷⁶ Rather than use an attempted estimate of small, medium, or large frame, the weight of a small framed person was used as the minimum weight and that of a large framed person as the maximum weight for any specified height.

The following results were obtained. Twenty persons (33-1/3 percent) weighed below the minimum weight. Eighteen persons (30 percent) weighed between the minimum and the maximum weight. Twenty persons (33-1/3 percent) weighed more than the maximum weight.

⁷⁶Fairfax T. Proudfit and Corinne H. Robinson, Normal and Therapeutic Nutrition (12th ed., New York: The Macmillan Co., 1965), p. 785.

Information was not available on two persons.

Totally, 63.3 percent were either underweight or in the range of normalcy.

Occupation

Of the twenty-one different occupations reported by the twenty men (See Table 3), sixteen were classified by the researcher as "physical or labor" occupations while five were classified as "sedentary."

Of the fifteen different occupations reported by the thirty-eight women, eight were classified as "physical or labor" occupations while seven were classified as "sedentary." The category of Housework included those women who were working in this capacity for other persons for salary. One occupation, "bonepicker," was described as being a person who picks bones from dead animals to be used in making combs.

The single occupation listed the most by the men was "farmer" and for the women was "teacher."

Totally, sixty-three percent were labor occupations while thirty-seven percent were sedentary occupations.

Age of Retirement

Age of retirement (See Table 4) was tabulated only for those who had been employed or were self-employed for at least twenty years.

TABLE 3. OCCUPATION

PHYSICAL		SEDENTARY	
13	FARMERS	2	BANKERS
2	RANCHERS	1	ATTORNEY
2	LABORERS	1	CLERK
2	MINERS	1	COUNTY TREASURER
2	RAILROAD WORKERS	1	DEPT. STORE MANAGER
1	AUTOMOBILE SALESMAN		
1	BARBER		
1	BRICKLAYER		
1	CARPENTER		
1	CONDUCTOR		
1	CONTRACTOR		
1	FACTORY WORKER		
1	RANGE RIDER		
1	SHEEPHERDER		
1	STAGEDRIVER		
1	TOURIST GUIDE		
32	MALES	6	MALES

PHYSICAL		SEDENTARY	
4	HOUSEWORK	10	TEACHER
3	WAITRESS WORK	4	SECRETARY
2	RUN BOARDING HOUSE	4	SEAMSTRESS
2	COOK	1	ARTIST
2	LAUNDRY PRESSER	1	CLERK
1	BAKERY	1	DR. OFFICE HELPER
1	BONE PICKER	1	FORTUNE TELLER
1	RESTAURANT OWNER		
16	FEMALES	22	FEMALES

TABLE 4. AGE OF RETIREMENT

	MALE	FEMALE
95-100		
90-94	1	
85-89	2	3
80-84	2	
75-79	5	
70-74	4	
65-69	3	1
60-64		
55-59		
50-54		
45-49		
40-44		1
UNKNOWN	3	1

Since many women had been employed only until their marriage or birth of the first child, "retirement ages" for these persons would not present a true picture. The life style of six women included a career.

Three men (15 percent) retired between the ages 65 to 69 with the rest (85 percent) retiring at a later age.

Hearing

Criteria used for rating hearing (See Figure 2):

Good--If the researcher used the usual conversational voice and was heard.

Fair--If the researcher used the usual conversational voice and was asked to "speak up, talk louder, or repeat the question."

Poor--If it was necessary for the interviewer to get next to the ear and shout and/or if it became necessary to conduct part of the interview in written form.

If the interviewee was wearing a hearing aid, he was asked to turn it off until the hearing ability was determined. Many people did not have their hearing aids on although they were being worn.

If the person to be interviewed was described by personnel as being "quite deaf," the researcher would talk in a louder-than-normal voice. Occasionally, the researcher was told that if she would "not talk so loud" or "lower her voice," the interviewee would be able to hear her.

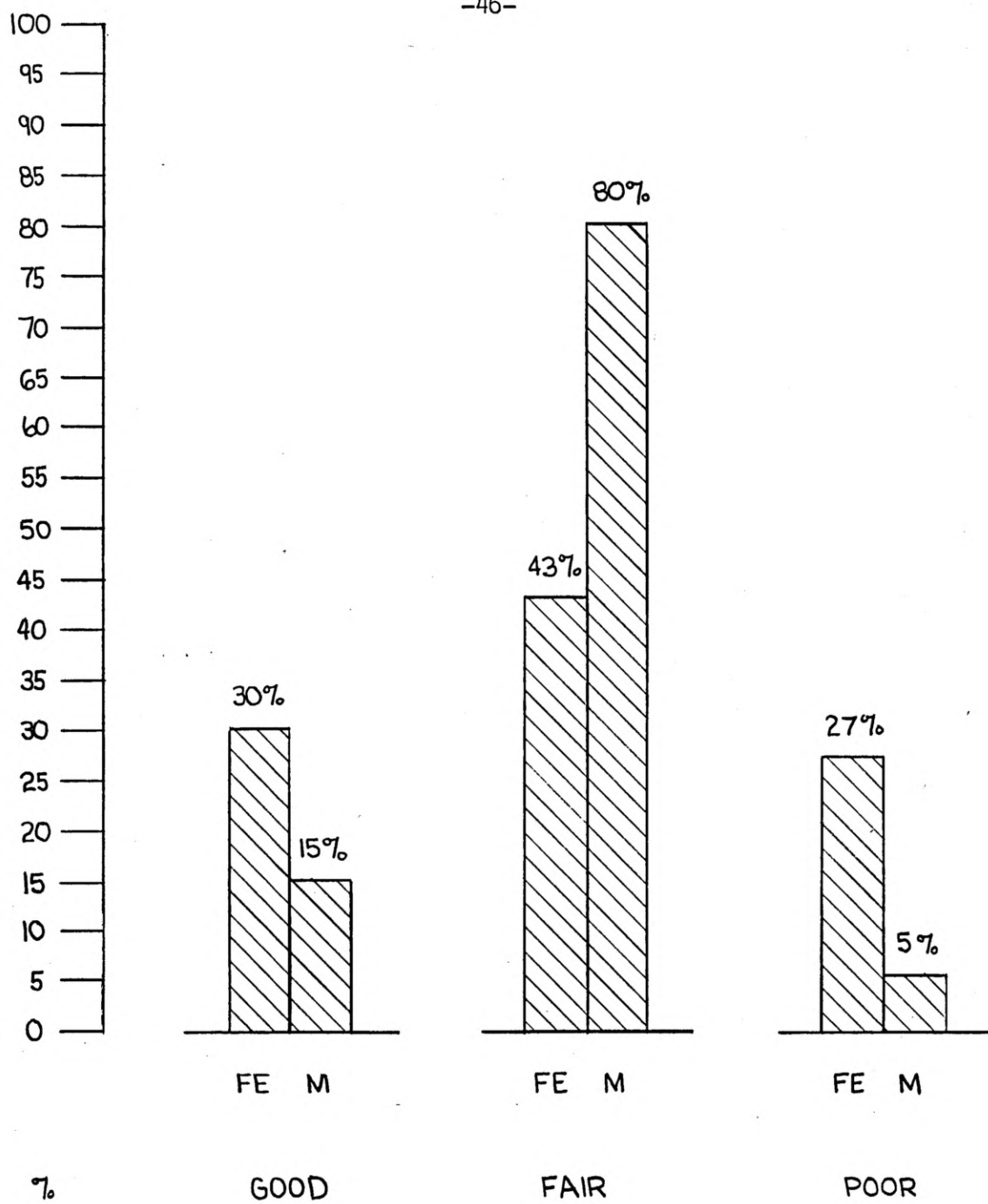


FIGURE 2. HEARING

Dr. Willard Parker⁷⁷ in discussing frequency and distorted auditory input proposes that when auditory input at the cortex is grossly distorted, simple amplification or increase in loudness only causes louder distorted speech. Shouting at this person does not increase his ability to understand but is more annoying than to a person with normal hearing since it causes booming low frequency sounds that are not intelligible. This accounts for the elderly person who says, "Don't shout at me; I can hear you," but who still does not understand what he is hearing.

In general, the males rated higher in hearing ability with 95 percent of them scoring in the Good to Fair category.

Sight

Criteria used for rating sight (See Figure 3):

Poor --If the person could no longer read with the aid of glasses.

Fair--If the person could read with the aid of glasses.

Good--If the person could read without glasses.

One male interviewee, aged one hundred one years, stated that he had been able to read without glasses until the last two years.

⁷⁷Willard Parker, M.D., "Hearing and Age," Geriatrics, XXIV, 4 (April 1969), p. 154.

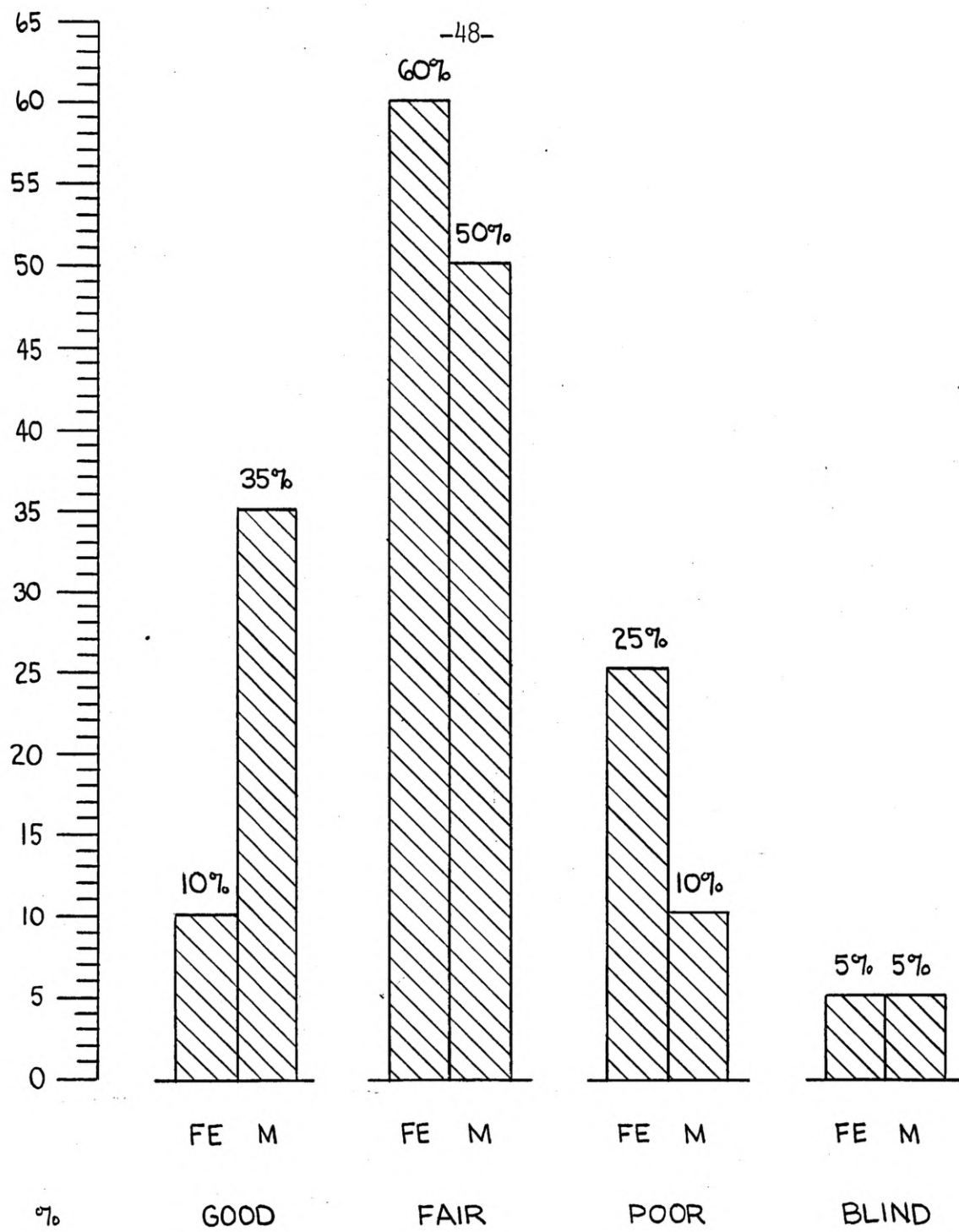


FIGURE 3. SIGHT

Seventeen persons (28 percent) were rated "fair" in both sight and hearing. Three (5 percent) rated good in both and four (7 percent) rated poor in both. Therefore, thirty-six persons (60 percent) rated better in one sense than the other.

In general, the males rated higher in sight than the females with 85 percent scoring in the good to fair category

Continency

A high number of the population reported still having bladder and bowel control--87.5 percent of the females and 85 percent of the males. (See Figure 4)

There was a higher percentage of females who had lost control than males--12.5 percent (female) as compared to 5 percent (male). However, in looking at the overall picture, there was no appreciable difference noted between the ratings of males and females.

Continency or incontinency was verified by the nursing staff.

Ambulation

Definition: "With Assistance"--ambulation with the aid of a cane, a walker, or another person.

Some people expressed the desirability of using a cane either because of a previous fall or an unsteadiness of gait. Many times the person would get up from a chair and walk unassisted across the room to get the cane before attempting to walk any distance.

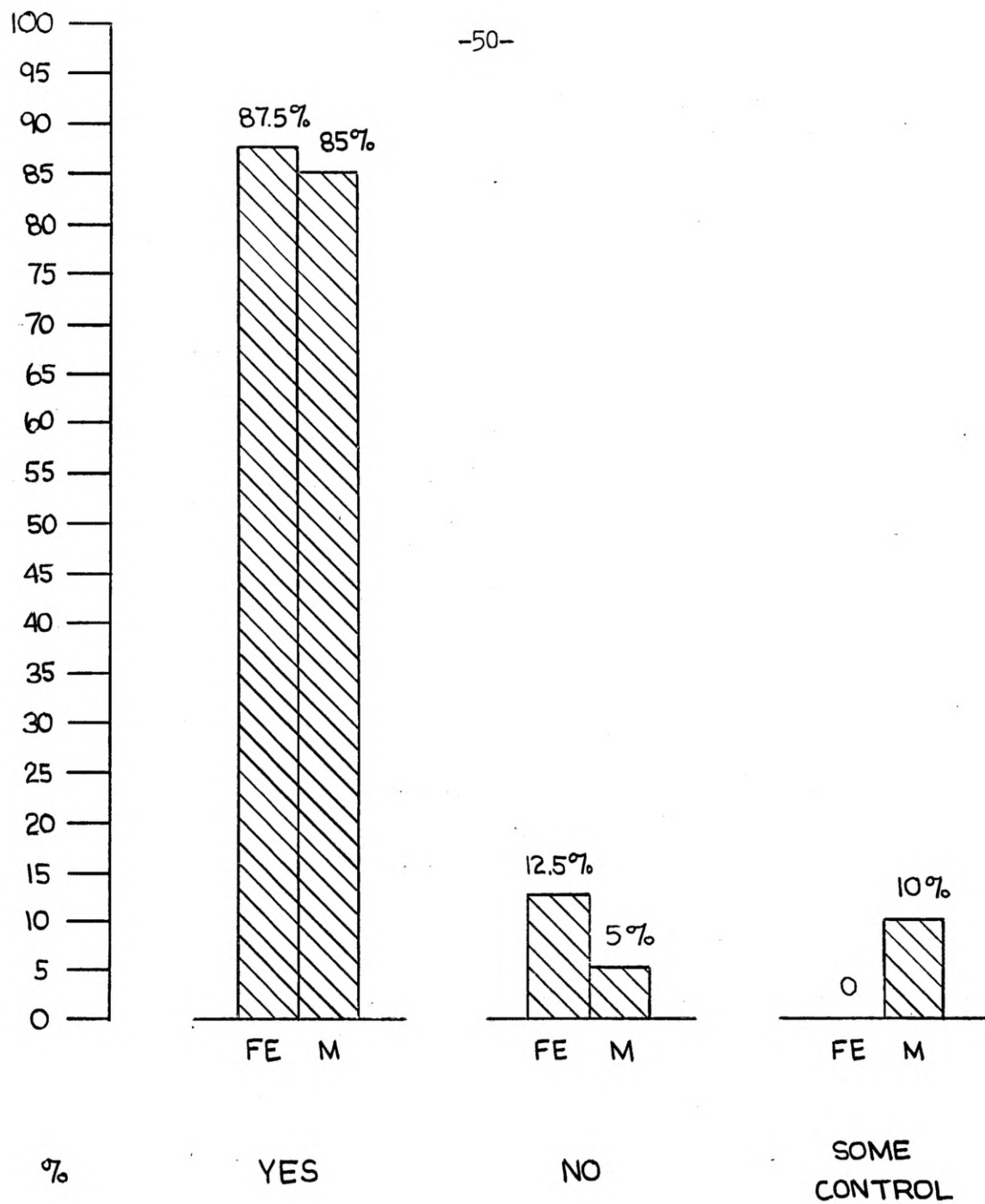


FIGURE 4. CONTINGENCY

One man, one hundred one years old, had begun walking with a walker one week before the interview due to "recent arthritis." Before that, he had been walking unassisted. One male who was listed in the "with assistance" category needed help with ambulation due to blindness, not because he was physically unable to walk.

Generally, there was no appreciable difference between the abilities of the two sexes concerning ambulation. More than half of the women and men were still able to get around unassisted. (See Figure 5.)

Diseases, Operations, Fractures

The question, "What diseases have you had in your lifetime?" was asked. (See Table 5) Often this question was answered, "None," until reworded, "What sickness have you had?"

A few interviewees who remembered having had only one or two mild childhood diseases had been vaccinated. This was especially true if the person had come to America by ship from a foreign country. Some remembered having smallpox and diphtheria at the same time as siblings who had died from these diseases. One woman recalled three younger siblings who died from typhoid fever within a six-week period. She never contracted the disease. Generally, whooping cough, measles, and mumps were highest in occurrence. Fourteen persons could not remember having had any diseases.

The next question was, "Have you ever had an operation?" Many

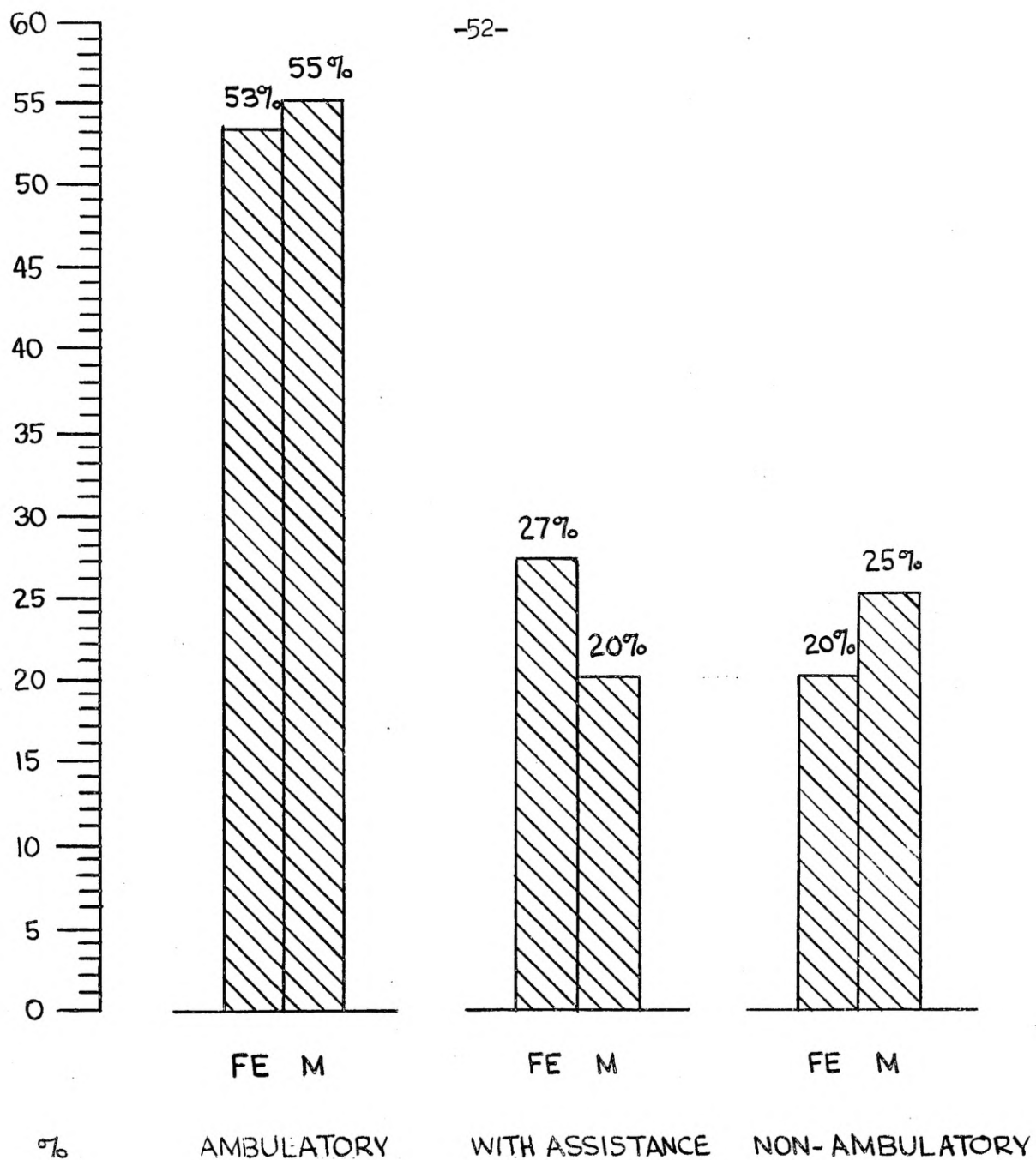


FIGURE 5. AMBULATION

TABLE 5. DISEASES

SMALLPOX	2
DIPHTHERIA	6
ROCKY MOUNTAIN SPOTTED FEVER	1
THYPHOID FEVER	3
WHOOPING COUGH	30
SCARLET FEVER	6
MEASLES (TYPE NOT SPECIFIED)	38
MUMPS	31
CHICKEN POX	20
PNEUMONIA	4
TUBERCULOSIS	5
UNKNOWN	1

TABLE 6. OPERATIONS

TUMOR REMOVAL	4
TONSILLECTOMY	3
HYSTERECTOMY	7
MASTECTOMY	2
HEMORRHOIDECTOMY	1
CATARACT REMOVAL	1
APPENDECTOMY	13
CHOLECYSECTOMY (ALL FEMALES)	7
HERNIA REPAIR	7
PROSTATECTOMY	4
HIP PINNING (ALL FEMALES)	11
STOMACH SURGERY	2
INTESTINAL SURGERY	5

of the operations (See Table 6) such as hip pinnings, colostomies, cataract removals, and prostatectomies, had occurred after age eighty. It was possible that colostomy and prostate operations were tumor-connected, but the interviewee did not state this. Appendectomies (thirteen) and hip pinnings (eleven) were the most frequently reported surgeries. Cholecystectomies (seven), hysterectomies (seven), and hernia repairs (seven) were next in frequency. Only three persons remembered having had their tonsils removed. Twenty-three persons (38 percent) stated they had never had an operation.

Replies to the question, "What broken bones have you had?" included arm, wrist, rib, leg, and hip fractures most frequently. (See Table 7) All the hip fractures (seventeen) were reported by females. One female had had three broken hips while two others had each had two. Thirty-three percent of the females studied had broken a hip. Some could not remember tripping or stumbling and said they just "kind of sat down." Twenty-four persons (40 percent) had never had a fracture.

Dietary Findings

Fifty-two members of the population reported that they had been on a regular or general diet all of their lives.

One ninety-seven year old female stated she had always eaten a diet low in vegetable content specifically omitting cabbage, turnips, and rutabagas.

TABLE 7. FRACTURES

SKULL	(	1
THUMB		1
FOOT		1
PELVIS		1
COLLAR BONE		1
HAND		2
BACK		2
ANKLE		2
ARM		5
WRIST		6
RIBS		6
LEG		7
HIP (ALL FEMALES)		17

Medically Prescribed Diets

Four persons stated that they were presently following a diabetic diet. This included a ninety and a ninety-two year old male who had been on the diet for five years, a ninety-one year old male for eight years, and a ninety year old female for fifteen years. Three of them were taking oral diabetic medication while the fourth person (the ninety year old male) was controlling the diabetes with diet alone.

A ninety-five year old female had been on a salt-free diet for the "last few years." A ninety-one year old female had been on a low fat diet for the past ten years. A ninety-three year old male was currently on a low residue diet.

Several persons commented that because of their agricultural environment, their diet had always been plentiful in milk products, vegetables, and cereals.

When asked the question, "Have you ever eaten any particular or special diet?" the answer most commonly received was that he or she had eaten "just everything" and no concern was expressed about certain nutrients, vitamins, or amounts.

Alcohol

One of the females who had abstained from the use of alcohol all her life had been using brandy medicinally since age eighty as prescribed by her physician. (See Figure 6)

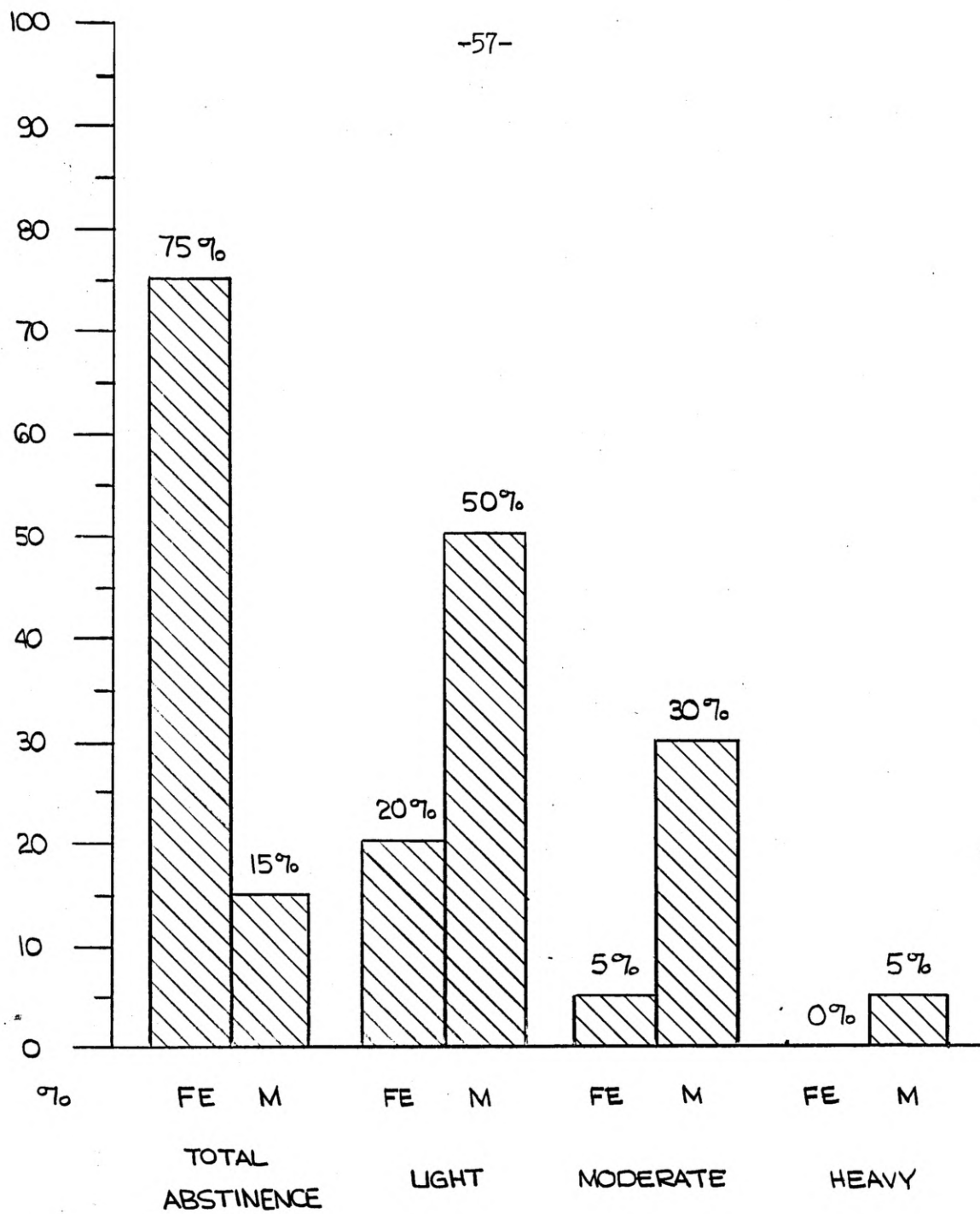


FIGURE 6. USE OF ALCOHOL

The one hundred one year old male stated he had not used alcohol in the last twenty-five years which would have been since age seventy-six.

A ninety-five year old female from England reported she had signed at an early age with the Blue Ribbon Army—an organization who pledged total alcohol abstinence.

Seventy-five percent of the females and fifteen percent of the males reported total abstinence from alcohol during their lifetime.

Use of Tobacco

The question was asked, "Have you ever used tobacco in any form during your lifetime?"

Statements ranged from having smoked one year to having smoked sixty years (See Table 8).

All the females (five) had smoked only cigarettes. The males had smoked cigarettes, cigars, pipes, and one had used chewing tobacco. One female and seven males were presently smoking. Four females and eleven males had quit smoking. Totally, 90 percent of the males had used tobacco and 87.5 percent of the females had not.

Place of Birth

Considering the territorial status of many western states during the 1870's and 1880's, it was anticipated that most of the interviewees would have been born in areas other than the West. Although

TABLE 8. SMOKING

YES		NO	
MALE	FEMALE	MALE	FEMALE
18	5	2	35
90%	12.5%	10%	87.5%

TYPE OF TOBACCO	MALE	FEMALE
CIGARETTES	9	5
CIGARS	8	
PIPE	11	
CHEWED	1	

	MALE	FEMALE
STILL SMOKING	7	1
QUIT	11	4

no definite pattern emerged concerning the place of birth, twenty-two (37 percent) were born in the Kansas, Missouri, Iowa, Nebraska, Minnesota area (See Figure 7). The Kansas-Iowa area represented the birthplace of thirteen people (22 percent).

Thirteen people (22 percent) were foreign born including: (1) England—4, (2) Canada—4, (3) Norway—1, (4) Yugoslavia—1, (5) Russia—1, (6) Holland—1, (7) Scotland—1.

Mobility

Mobility was determined by the researcher arbitrarily defining "mobile" as having lived in more than three states or countries and "non-mobile" as having lived in three states or countries or less.

Forty-three persons (72 percent) were classified as non-mobile while seventeen (28 percent) classified as mobile. One native born Montanan stated she had never lived out of the state.

Generally, those classified as non-mobile had moved only intra-state after moving to Montana.

Length of Time at Present Residence

Length of time in the nursing or retirement home varied from one month to eight years (See Figure 8). Forty-two percent of the population had been living at their present residence from one to four years. There seemed to be no trend concerning the time one had resided in the home and his or her age. A person might have been living there five

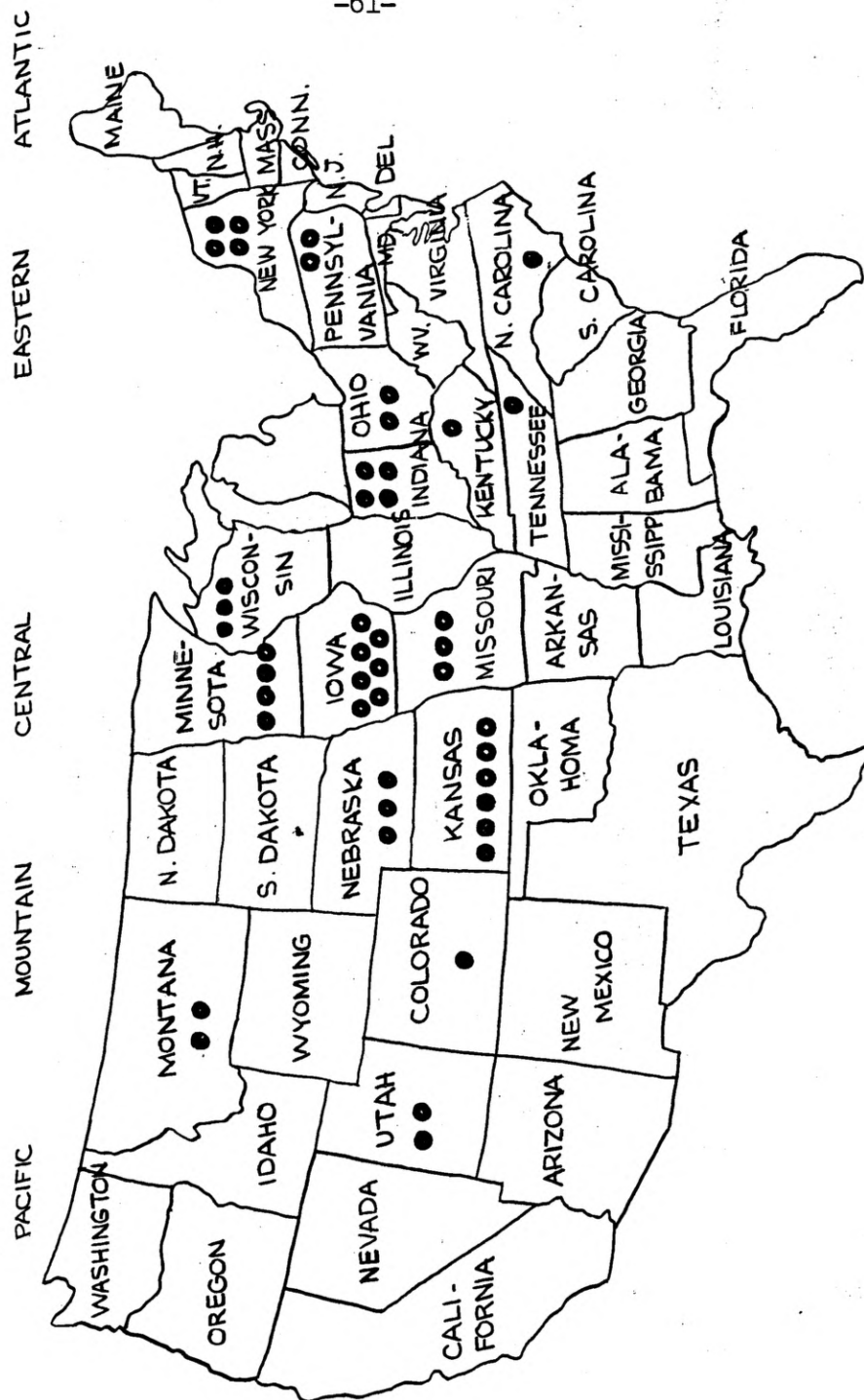


FIGURE 7. PLACE OF BIRTH

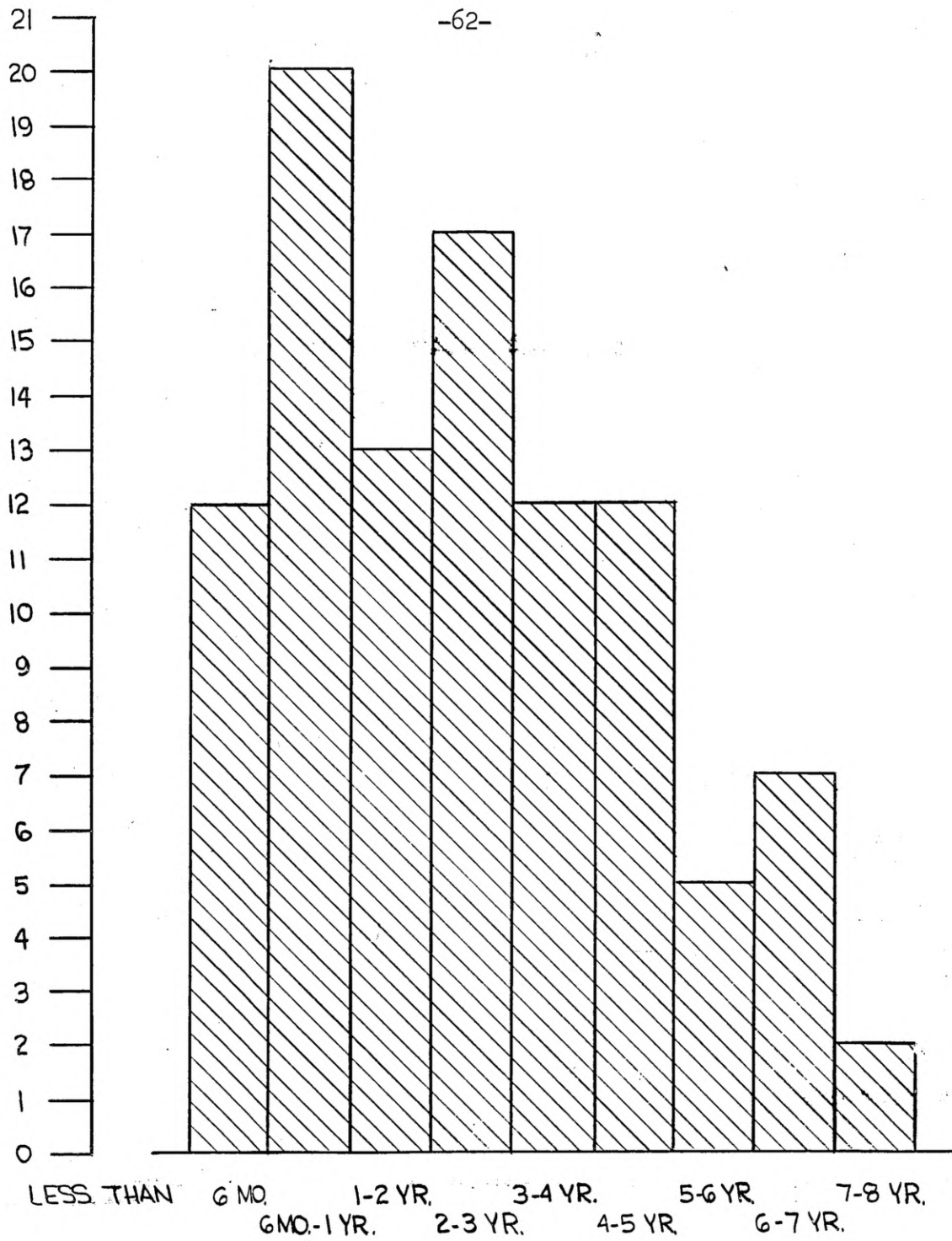


FIGURE 8. LENGTH OF TIME AT PRESENT RESIDENCE

years since he was eighty-five years old or two years and be ninety-seven years old. For example, one person had been living at the home for five years (since age eighty) and another had been there two years (since age ninety-five).

Circumstances That Influenced Change of Residence

Forty-seven percent of the population stated a physical handicap as the reason for coming to the nursing home. If this handicap had since been corrected (such as an inability to walk due to a fracture), no plans had been made for moving back into their own home. Several mentioned having sold or rented their home after entering the nursing home.

Not wanting to be alone was another reason given for moving into a nursing or retirement home. Thirty-eight percent of the population gave "loneliness" as the reason for changing their place of residence.

Fifteen percent of the population thought they had moved into the nursing home to please relatives or friends. They felt that living alone after the spouse had died had caused them to be a nuisance to their children or caused the children to worry. One woman said her children had "pushed" her into the nursing home.

Only four persons mentioned finances as a factor influencing their moving. Four people had come to a home directly from the hospi-

tal while two others had come from another nursing home.

Number of Children Born to The Population Studied

A total of one hundred sixty-five children were born to the subjects studied. This was a mean of 2.75 children per family. However, seventeen families (28 percent) were childless. The adjusted mean for the families having children was 3.8 children per family. One hundred twenty-six (76 percent) of the children were still living. The researcher did not ask for their ages. Thirty-nine (24 percent) of the children had died. Ages of thirty-one of the thirty-nine dead children were given to the researcher without requesting them. Only ten had lived to reach the age of sixty. Seven had died in infancy. (See Table 9)

Number of Children Born to the Interviewee's Parents

The number of children that had been born to the interviewees' parents ranged from one to fourteen (See Table 10). Fifty percent of the families had had from four to seven children. Two or three children were born in 18 percent of the families with another 18 percent having had nine or ten.

There was a total of three hundred sixty-six children born in all families with a mean of 6.1 children per family. Twenty-four percent of the children were still living--the sixty interviewees and forty-seven siblings.

TABLE 9. NUMBER OF CHILDREN BORN TO THE POPULATION STUDIED

NUMBER OF FAMILIES	NUMBER OF CHILDREN	LIVING	DEAD
17	0	-	-
3	3 (1 EACH)	2	1
7	14 (2 EACH)	11	3
14	42 (3 EACH)	35	7
5	20 (4 EACH)	14	6
8	40 (5 EACH)	26	14
3	18 (6 EACH)	16	2
2	14 (7 EACH)	9	5
1	14	13	1

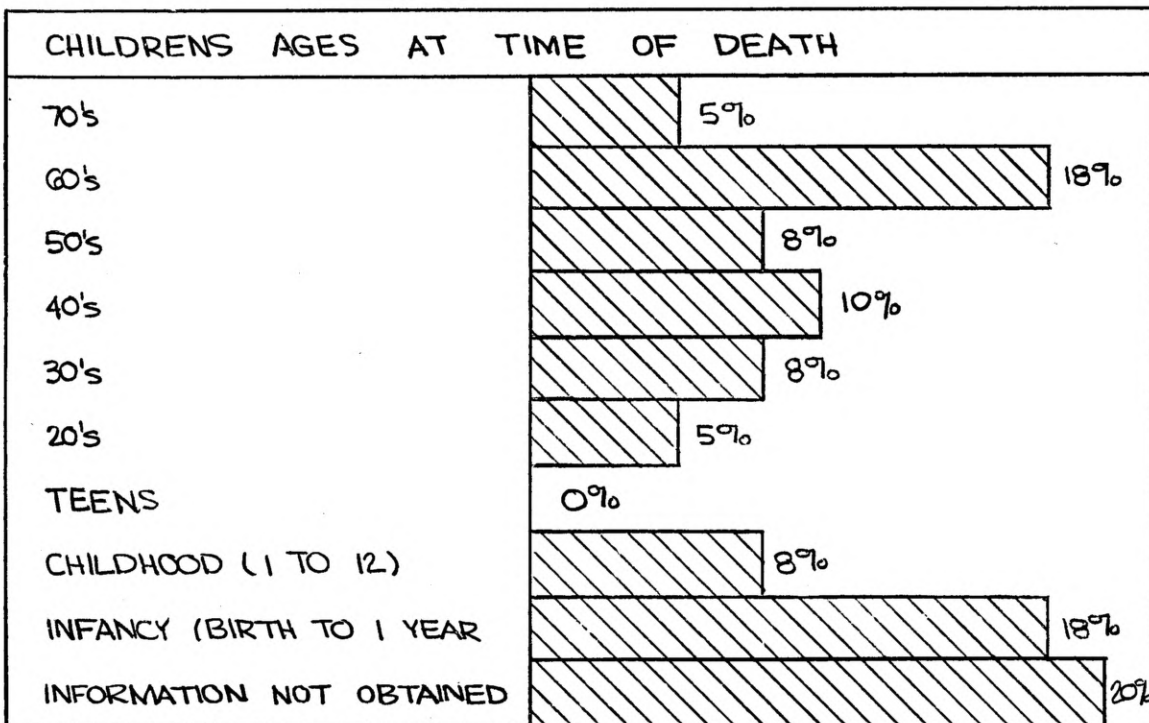


TABLE 10. NUMBER OF CHILDREN BORN TO THE
INTERVIEWEE'S PARENTS

NUMBER OF CHILDREN	NUMBER OF FAMILIES
1	1
2	5
3	6
4	11
5	4
6	8
7	8
8	2
9	6
10	5
11	1
12	2
13	0
14	1

Order of Birth Rank in the Family

Fifty percent of the people interviewed were born either first or second into their parents' family (See Table 11). Forty-eight percent of the females were born first or second in comparison to 40 percent of the males. Only five persons (8 percent) were born later than the fifth birth. This included four females and one male. One male born tenth was the last birth in his family. None of those interviewed were born as an eighth child.

Heredity

This was the most difficult information to obtain. Thirty-four of those interviewed had had five siblings or more. Recalling ages of five to thirteen deceased brothers and sisters was difficult even for those whose memories were very good in other areas. Relatives weren't always able to supply this information, either. Many times if a family member had in their possession a family Bible, it contained a birth and death record. It was noted through conversation that a number of people--the interviewee, a sibling, or a younger generational relative--had written or were attempting to write a "family genealogy." The geneologies that were finished and shown to the researcher comprised an entire book, starting at an earlier point in time and tracing the family in all directions.

The number of brothers and sisters totaled three hundred six

TABLE II. ORDER OF BIRTH IN THE FAMILY

	MALE	FEMALE
1 ST BORN	5	9
2 ND BORN	3	14
3 RD BORN	5	5
4 TH BORN	4	2
5 TH BORN	2	5
6 TH BORN	0	1
7 TH BORN	0	2
8 TH BORN	0	0
9 TH BORN	0	1
10 TH BORN (ALSO LAST)	1	0
UNCERTAIN	0	1

(See Table 12). One third of the siblings had died in their seventies or eighties. The average life expectancy when these people were born (before the turn of the century) was less than forty-five years.⁷⁸

Fifty percent of the interviewees' mothers had died in their seventies, eighties, or nineties with another fifteen percent dying in their sixties (See Table 13). The mothers' birthdates were approximately in the 1850's when the average life expectancy was approximately forty-one years.⁷⁹

Sixty-four percent of the fathers had died in their seventies, eighties, or nineties with another twenty-two percent dying in their sixties. In general, the fathers were more longevous than the mothers.

It was not attempted to differentiate accidental from natural death.

The following samples of certain families seemed to present a picture of longevity:

⁷⁸Albert F. Wessen, "Some Social Characteristics of Long Term Care," Older People and Their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia, Pa.: F. A. Davis Company, 1965), p. 261.

⁷⁹"Progress in Longevity Since 1850," Statistical Bulletin (Publication of Metropolitan Life Insurance Co., New York), XXXIV, (1963), p. 1.

TABLE 12. NUMBER OF SIBLINGS

LIVING	
60's	1
70's	14
80's	23
90's	9
TOTAL	47

DEAD	
INFANCY	15
CHILDHOOD	10
TEENS	3
20's	8
30's	7
40's	6
50's	9
60's	17
70's	49
80's	56
90's	18
UNKNOWN	61
TOTAL	259

TABLE 13. AGE OF PARENTS AT DEATH

20's	2	0
30's	2	0
40's	4	1
50's	3	2
60's	9	13
70's	14	16
80's	8	14
90's	8	8
100's	0	1
UNKNOWN	10	5
AGE	MOTHER	FATHER

1. Family A.

The mother died at seventy-seven years old.

The father died at eighty-eight years old.

Three sisters died at ages eighty-eight, eighty-four, and eighty-one. One sister, still living, was eighty years old.

The interviewee was ninety-one years old.

2. Family B.

The mother died at ninety-seven years old.

The father died at one hundred eight years old.

One brother died at sixty-two years of age. One living brother was eighty-three years old. Two sisters died at ages seventy and seventy-one.

The interviewee was ninety-seven years old.

3. Family C.

The mother died at eighty-five years old.

The father died at sixty-five years old.

Two brothers died at ages seventy-four and eighty-eight. One living brother was eighty-seven years old.

The interviewee was one hundred one years old.

4. Family D.

The mother died at age eighty-nine.

The father died at age ninety-four.

Two sisters had died young—one in infancy and one in her 20's.

Two sisters had died in their sixties while two other sisters had died at ages ninety-four and ninety-five. Two brothers had died in their eighties.

The interviewee was ninety-seven years old.

5. Family E.

The mother had died at age seventy-eight.

The father had died at age ninety-four.

Two sisters were living, ages seventy-nine and eighty-two. Five sisters had died at ages seventy-eight, eighty-two, eighty-three, eighty-four, and eighty-seven. One brother had died at age eighty-three.

The interviewee was ninety-six years old.

6. Family F.

The mother had died at age sixty-six.

The father had died at age eighty-four.

One brother had died at age seventy. The remaining siblings were still alive including three brothers--ages seventy-one, eighty-three, and eighty-five--and two sisters--ages eighty and eighty-seven.

The interviewee was ninety-three years old.

7. Family G.

The parents had died in their seventies.

Two sisters and one brother were still living, ages seventy, seventy-seven and seventy-eight. The dead siblings' ages were: one

in infancy, seventy-eight, eighty-one, eighty-three, eighty-five, eighty-seven, eighty-nine, and ninety years old.

The interviewee was ninety-one years old.

8. Family H.

The parents were ninety years old (mother) and ninety-seven years old (father) at the time of death.

The ages at death of three brothers was unknown. One sister had died as a child. The others--four brothers and two sisters--had died at ages eighty-nine, ninety-one, ninety-one, ninety-four, ninety-five, and ninety-seven.

The interviewee was ninety-one.

There were no instances where the subject interviewed was the only person in the family reaching an aged status. At least one parent or sibling had lived into their seventies or eighties.

1. Family A.

The father and mother were ages sixty-six and fifty-four, respectively, when they died.

Three brothers had died at ages twenty-six, twenty-nine, and forty-six. Two other brothers reached ages seventy-eight and eighty-five.

The interviewee was ninety-two years old.

2. Family B.

The mother had died at age twenty-six.

The father lived to be ninety-three years old.

The only sibling, a brother, died at thirty-seven years old.

The interviewee was age ninety-six.

3. Family C.

The mother and father had died at ages fifty-five and sixty-five, respectively.

One sister had died at age seventy. One living sister was ninety-six years old.

The interviewee was ninety-four years old.

4. Family D.

The mother had died at age thirty-four.

An accidental death had taken the father at age fifty-two.

Two siblings had died in infancy. One brother had died at age forty in an accident. Another sibling had died in her thirties. Two siblings reached ages seventy-two and eighty-one.

The interviewee was ninety-two years old.

5. Family E.

The parents had died in their sixties.

Three siblings had died from typhoid fever at ages two, four, and seven. A brother was still living, age ninety-four.

The interviewee was ninety years old.

6. Family F.

The mother lived to age thirty-seven.

The father died at age forty-five.

Three brothers died at ages fifty- fifty-four, and seventy-nine.

Two sisters died at ages sixty-two and eighty-one.

The interviewee was ninety-three years old.

7. Family G.

The mother and father lived to be ages sixty-one and sixty-four, respectively.

The only sibling, a brother, had died at seventy-three years old.

The interviewee was ninety-two years old.

8. Family H (An example of a large family representative of young deaths and older ages.)

The mother had lived to be seventy years old.

The father had died at age eighty.

Five siblings---four brothers and one sister---had died at early ages: two in infancy, two at age nineteen, and one at age thirty. Five siblings---four sisters and one brother---had died at older ages: seventy-seven, seventy-seven, seventy-nine, eighty, and eighty-four. One sister and two brothers (ages seventy-three, seventy-five, and seventy-eight) were still living.

The interviewee was ninety-five years old.

Medications

The researcher attempted to list and classify the medications currently used by the interviewees. Because of the variations in poli-

cy at each residence, it was felt any listing would contain gross inaccuracies. Many people kept their medications in their room and although these were shown to the interviewer, most bottles were not labeled as to content. In other instances, the medications listed on a person's chart were no longer current. Therefore, the attempt to list and classify medications was abandoned.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Acknowledging that there exists an enlarging group of people living to an older age, the investigator attempted to describe certain characteristics about a selected group of people living in nursing or retirement homes over the age of ninety years.

This study was attempted because of the evidence in the literature of increasing number of people who are reaching the ninth and tenth decades. Characteristics of these people as a group may have important health implications. If a number of these people could be interviewed and data interpreted, could certain needs be identified important not only to nursing but to the community?

A descriptive study of sixty people over the age of ninety years residing in nursing or retirement homes in four towns in Montana was undertaken by the researcher. It was wondered if common threads in life style would emerge among this group. From the twenty-seven questions asked in a personal interview, many commonalities did emanate.

The major findings of the study were:

1. There are a considerable number of people, ninety years old and older, residing in nursing and retirement homes (in the geographic area studied).
2. The population was Caucasian, Protestant, and American-born.
3. People over the age of ninety are able to communicate ef-

fectively with others and to remember past events and circumstances.

4. These people are not incapacitated physically and most of them can walk unassisted, hear and see fairly well, and still have bowel and bladder control.

5. Occupations were varied and age of retirement was late (seventy-five to seventy-nine years old).

6. The men's habits included use of alcohol and tobacco; the women's habits didn't include either.

7. In many families there tended to be a trend toward longevity with at least one parent and sibling reaching an age of mid-seventies or eighties. There was no family where the interviewee was the only person reaching an aged status. The interviewee was usually born as the first or second child of a large family (mean 6).

8. The circumstances that brought them to their present residence were physical reasons or loneliness, and they had been residing there from one to four years.

Other Findings of the Study

In reviewing the literature it became apparent that the "aged" are often studied as a group including anyone "over the age of sixty-five." They are not usually differentiated into smaller, more similarly aged groupings. No study was found to represent a sampling similar to the author's, i.e., a study of people over the age of ninety years.

There were two studies of characteristics of centenarians.

In discussing the research project with acquaintances, fellow students, instructors, university staff, social agency workers, and families of the interviewees, it became obvious that many still think of "ninety years olds" as a few longevous persons reaching a very old age. There did not seem to be social awareness of the numbers of people in this age group present in the communities.

It was found to be difficult, if not impossible, to procure the whereabouts of aged people living in private residences in order to obtain a more random sampling.

Nursing and retirement homes were most cooperative in arranging interviews and participating in the study.

This type of a study was proven to be feasible. People of the ninety and older age group were able to effectively communicate with the researcher and to remember past events and circumstances. They were willing to participate in the research study.

The "Profile of an Aged Female and Profile of an Aged Male" (See Appendix F) describes the characteristics of fifty percent or more of the male, female, or combined population.

These trends could provide information for planning nursing and health care for a comparable group of people. Wessen in his article on long term care suggests that long term care involves much more than simple duration and its psychological and economic consequences.

"... a distinctive problem of medical care, with unique characteristics and needs."⁸⁰

By using the research results as guidelines, nursing care and services could be directed toward the actual capabilities of aged people rather than toward the stereotyped "ninety year old" who is often thought of as senile and physically incapacitated. This is important not only because of the nursing and health implication, but for planning community services to meet the needs of similar age groups. Some of the information could be utilized by nursing and retirement homes in planning for older residents of the homes.

Recommendations

The researcher recommends that further studies be conducted with aged people. A scientific-based study would yield more specific results and allow comparisons with a control group. If a random sampling of people eighty years old and older were used, findings could be generalized to a larger segment of the aged population. This information would be valuable in planning health care and community services for the aged.

⁸⁰Albert F. Wessen, "Some Social Characteristics of Long Term Care," Older People and their Social Worlds: The Subculture of The Aging, eds. Arnold M. Rose and Warren A. Peterson (Philadelphia, Pa.: F. A. Davis Company, 1965), p. 261.

APPENDIXES

APPENDIX A

Dear _____,

I am a registered nurse presently enrolled in the Master of Nursing Program at Montana State University, Bozeman, Montana. The focus of the research I am doing is people who live beyond the age of 90 years.

One of the people I would like to include in my study is _____
_____, your _____. I have been to interview _____ at
the nursing home in _____. _____ was most co-operative
in helping me get information for my study. However, some items _____
couldn't remember or was uncertain about are listed below.

I am asking your co-operation to help me obtain the information I need
to make this study meaningful and accurate.

Sincerely,

LaVerne Jourdonais, R.N.

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APPENDIX B

I GIVE PERMISSION TO THE SOCIAL SECURITY ADMINISTRATION TO RELEASE
TO LAVERNE JOURDONAIS, REGISTERED NURSE AND RESEARCHER, A COPY OF
THE DATE OF MY BIRTH.

SIGNED _____

APPENDIX C

Dear Sir:

I am a registered nurse enrolled in the Master of Nursing program at Montana State University, Bozeman, Montana.

The focus of my research paper is people who live beyond the age of 90 years.

I am requesting co-operation from your agency to help me obtain the information I need to make this study meaningful and accurate.

Thank you,

LaVerne Jourdonais, R.N., B.S.

The faculty and staff from Montana State University School of Nursing appreciate your assistance with this study.

Dr. Laura Walker, R.N., Ph.D.
Director, School of Nursing

APPENDIX D

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Social Security Administration

Social Security Administration
District Office
616 Helena Avenue
Helena, Mt. 59601

May 19, 1971

Miss Lavern [sic] Jourdonais
School of Nursing
Montana State University
Bozeman, Mt. 59715

Dear Miss Jourdonais:

We have screened the attached list against the records we have available in our office. Those dates of birth we have checked in red agree exactly with the dates of birth established on our records. If our records contained a different date, we have made such an entry immediately above the date you showed. For those we annotated as NIF the individual was "not in our files."

We appreciate the written authorization obtained from each individual for the release of this information.

Sincerely yours,

(signed Jack P. Sharp)

Jack P. Sharp
District Manager

Enclosure

APPENDIX E

THE INTERVIEW

1. Race
2. How old are you? What is your birthdate?
3. Are you married? Is your wife (or husband) living?
4. What is your religion or church?
5. How much education do you have? How much schooling?
6. How tall are you? Are you still that tall? (Most persons measured)
7. How much do you weigh? (All those who were able to stand were weighed.)
8. Have you ever worked for wages? What was your occupation? What was your work?
9. How old were you when you retired from work?
10. Do you wear a hearing aid? (Response.) If yes, would you turn it off, please, for a few minutes? How is your hearing? (Response.) Can you hear me right now? (normal conversational tone) If no response or asked to repeat the question, voice was raised and the question repeated more loudly.
11. How are your eyes? Can you read? (Response.) Can you read with glasses?
12. Are you still able to control your bladder? Can you get to the bathroom or do you have accidents?
13. Are you able to get around by yourself?
14. What diseases have you had in your lifetime? What sickness?
15. What broken bones have you had?
16. Have you ever had an operation?

APPENDIX E (continued)

17. Have you ever followed any special diet? Are there certain foods that you eat? Are there certain foods that you don't eat?
18. Do you drink? Have you ever drank alcohol--wine, beer, whisky? (Response.) Not even one drink?
19. Have you ever used tobacco in any form during your lifetime? Do you smoke?
20. Where were you born?
21. Have you ever lived in more than three states or countries?
22. How long have you lived here at the home?
23. Could you tell me something about the circumstances that brought you here (to the home)?
24. Do you have any children? How many? Are they all still alive?
25. How many brothers and sisters did you have? Can you remember their ages when they died? (Or, if still living) How old are they now?
26. Where were you born in your family? Were you the oldest or the youngest?
27. How old was your mother when she died? How old was your father when he died?

APPENDIX F

PROFILE OF AN AGED FEMALE AND
PROFILE OF AN AGED MALE

He and she are Caucasian.

They are between ninety and ninety-two years old.

Their marital status is widowed.

They are of the Protestant faith.

She has finished at least the eighth grade. He has finished at least the seventh grade.

Her height is between 4 feet 10 inches and 5 feet 2 inches. His height is between 5 feet 7 inches and 5 feet 9 inches. Their height is a decrease from one half to three inches of their original height.

She weighs between eighty pounds to one hundred twenty pounds. He weighs between one hundred twenty to one hundred forty pounds.

Her life style did not include the pursuit of a career. He pursued a career and retired between the ages of seventy to seventy-nine.

Their hearing rates fair to good, but his hearing is somewhat better than hers.

Fair is the rating given to her sight. His sight rates fair to good and is somewhat better than hers.

Incontinence is not a problem for either of them.

They can walk unassisted.

APPENDIX F (continued)

They have had childhood diseases—measles, mumps, whooping cough, and chicken pox.

There is a good possibility they have never had an operation. If she has, it was an appendectomy, cholecystectomy, or hip pinning. If he has, it was an appendectomy or hernia repair.

They may never have had a fracture. If she did, it was a broken hip.

If he did, it was a broken leg or ribs.

They have never been concerned with following any particular type of diet.

Her habits did not include the use of alcoholic beverages or tobacco.

His habits included the use of both alcoholic beverages and tobacco. He rated his use of alcoholic beverages from "light to moderate." He was not currently using tobacco.

They are American-born and may have come from one of the mid-central states.

They have been non-mobile in terms of inter-state moving.

They have been at their present residence from one to four years.

The circumstances that brought them to their present residence (the home) were physical reasons or loneliness.

They either were childless or had a family of one to three children.

These children were still living.

APPENDIX F (continued)

There had been from four to seven children in their parents' family.

The siblings were no longer alive.

They were either the first or second born child of their parents.

The parents had died in their seventies, eighties, or nineties, but the father had probably outlived his wife.

They are able to communicate with others and have a good memory for past events.

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