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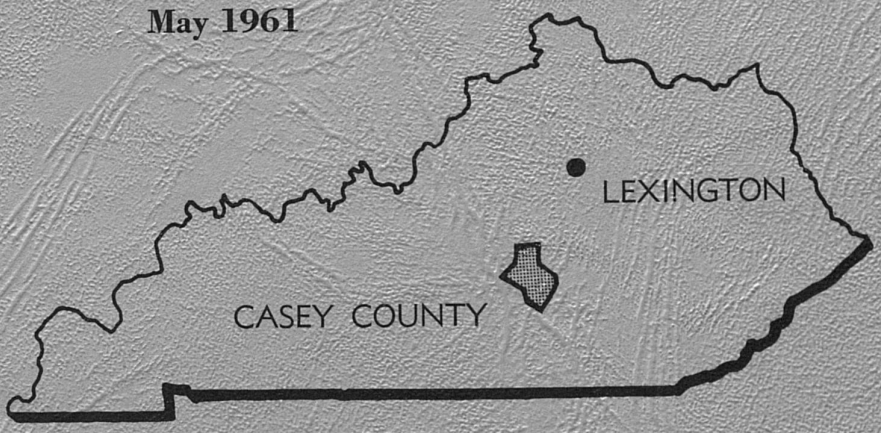

Health Problems of Older Persons in Selected Rural and Urban Areas of Kentucky

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In cooperation with

Farm Population and Rural Life Branch, Economic and Statistical Analysis Division, Economic Research Service
U. S. Department of Agriculture

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INTRODUCTION

One of the more recent developments in health investigations is the attempt to describe the interrelationships between health status and other aspects of human life. It is generally recognized that health is not an isolated phenomenon, but is associated with many factors.

Health behavior, as all human behavior, takes place in an environmental setting, and it is a fruitful research task to attempt to trace the impact of the social environment upon such behavior. Among older persons the problem of health is of particular significance. At a time when more and more resources are directed to remedying health difficulties of older persons, it is vitally important to discover the role of socio-environmental factors in these health problems. Having access to such information should aid action agencies in developing more realistic health programs for older persons.

A second and related research task is to focus attention more directly upon the behavior of the ailing person. The life history of a person attests to the recurrent process of organizing one's daily

life, of cutting down or withdrawing from certain social roles, of selecting and taking on new or different activities in keeping with one's interests and abilities, and of adapting and adjusting psychologically to these changes. Among older persons this process is intensified and aggravated by declining physical vigor and the development of infirmities. In what ways do physical health status and socio-environmental factors influence the social and psychological behavior of older persons? Data relevant to this question may contribute to understanding the behavior.

A third and somewhat different health problem, of especial concern among older persons, is that of obtaining adequate health services in keeping with the individual's needs and ability to pay. Many areas of the United States, particularly some rural areas, have inadequate health facilities. Medical costs have risen markedly in recent years. Many older persons with limited financial resources are confronted with heavy medical costs, and probably many more fail to obtain necessary health services because they hesitate to go into debt. Information is needed for appraising the health services available to older persons, for assessing their health needs, and for estimating the health costs to them.

Objectives and Procedures

This report has four objectives: (1) to assess the impact of selected socio-environmental factors upon the physical health

status of older persons; (2) to appraise the effect of physical health upon the social and psychological behavior of older persons; (3) to examine the impact of selected socio-environmental factors upon the role impairments and perceptions of older persons; and (4) to present information on the health services available to, and the health needs and costs of, older persons.

Data relevant to these objectives are taken from a larger survey of problems of older persons.[1] Older persons responded to questions put to them in personal interviews. No medical verification was made of reported health ailments. Socio-environmental factors in the survey were limited to those of residence, sex, age, and socio-economic status. The social behavior of the respondents is assessed under the concept "role impairment," and psychological behavior is limited to certain perceptions of the older persons.

The factor of socio-economic status probably requires elaboration. Indices of socio-economic status—such as education, occupation, income, housing, and residential area and others—have been used extensively with adult subjects (or their spouses) who are engaged full time in the labor force. It is questionable whether such indices are applicable to older persons who have reduced their work activities or withdrawn completely from the labor market. In this study, the aim was to find an index which reflected the past style of life of a sample of older persons who had lived almost all their adult lives in their present communities.

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[1]Field procedures are described in the Appendix.

The index of socio-economic status used consists of 14 items of equipment commonly owned by or accessible to American families.[2] Those owning or having access to fewer than 9 items were classified as having low socio-economic status, and those owning or having access to 9 to 14 items were classified as having high socio-economic status. A degree of verification of the indices of socio-economic status was provided, since the interviewers observed and recorded the presence or absence of many of the items of equipment. The level of economic living as assessed by items of equipment was closely associated with level of income. The median annual income of the older men and women of low socio-economic status was $704, and for those of high socio-economic status, $1,843.

The 0.05 level of probability was used in testing the significance of differences. Differences that are not statistically significant but supply supporting evidence are referred to as slight or negligible.

It is recognized that the analyses of the health data omit many variables. Family and community relationships, for example, probably have an important bearing on self-assessed health responses, and these are not included.

Sample

In 1959, men and women aged 60 and older in an area probability sample of households in a rural Kentucky county and a random sample of

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[2] Items of equipment:

1. automobile
2. gas or electric range
3. central heating
4. piped water
5. running hot water
6. electricity
7. telephone
8. radio
9. television
10. mechanical refrigerator
11. home freezer
12. automatic clothes washer
13. inside flush toilet
14. bath or shower

persons of comparable age in a Kentucky metropolitan area were interviewed in their homes. No institutionalized older persons were included. Casey county, with a total population of slightly over 14,000 persons in 1960, is a 100-percent rural county located in the Southern Appalachian Region and relatively isolated from any large urban center. The greater Lexington community had a total population of about 120,000 persons in 1958.

Detailed characteristics of the samples are presented in Table 1. The age range was 60 to 97 years, with a median of 69 years. The sample included more women than men, a difference due to the greater proportion of female respondents in the urban sample. Three-fifths of the respondents were married, and rural persons exceeded urban persons in this respect. One-fifth of the urban sample was nonwhite, compared with less than one percent for the rural sample. The sample was predominantly Protestant.

Urban respondents, compared with rural persons, had slightly more formal education, substantially higher incomes, and were of markedly higher socio-economic status. Almost 7 out of 10 older persons owned their homes. Rural persons had lived for an average of 60 years in their present community, while urban persons had lived for an average of 45 years in theirs.

HEALTH STATUS

The physical, social, and psychological health status of the respondents is assessed from three sets of data: (1) their reported physical health ailments, (2) their self-evaluation of their role impairments, and (3) their responses to certain questions about their perceptions and outlook.

Table 1. Selected Characteristics of Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Characteristic	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Number of cases	627	100	609	100	1,236	100
Sex						
Male	312	50	220	36	532	43
Female	315	50	389	64	704	57
Age						
60-64	166	27	152	25	318	26
65-69	159	25	145	24	304	24
70-74	124	20	143	23	267	22
75 and over	178	28	169	28	347	28
(Median)	(69)		(70)		(69)	
Marital Status						
Married	429	68	308	51	737	60
Widowed	161	26	252	41	413	33
Never married	23	4	37	6	60	5
Divorced or separated	14	2	12	2	26	2
Residence						
Farm	439	70	--	--	439	36
Village or town	131	21	--	--	131	10
Open country, not farm	57	9	--	--	57	5
Large city	--	--	609	100	609	49
Color						
White	627	100	482	79	1,109	90
Nonwhite	*	*	127	21	127	10

Characteristic	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Religion						
Protestant	494	79	521	86	1,015	82
Catholic	14	2	26	4	40	3
Jewish	1	-	10	2	11	1
Other	25	4	13	2	38	3
No response	93	15	39	6	132	11
Formal Education						
0-4 grades	222	35	103	17	325	26
5-8 grades	329	52	206	34	535	43
9-12 grades	35	6	142	23	177	14
13-16 grades	21	3	109	18	130	11
17 or more grades	4	1	20	3	24	2
No response	16	3	29	5	45	4
(Median)	(5.5)		(8.1)		(6.5)	
Annual Money Income Per Person						
None	36	6	16	3	52	4
$1 - 499	164	26	59	10	223	18
$500 - 999	201	32	134	22	335	27
$1,000 - 2,999	169	27	203	33	372	30
$3,000 - 4,999	23	4	69	11	92	8
$5,000 and over	18	3	80	13	98	8
No response	16	2	48	8	64	5
(Median)	($762)		($1,704)		($964)	
Socio-Economic Status**						
Low (8 items or less)	517	82	89	15	606	49
High (9-14 items)	110	18	520	85	630	51
Home Ownership						
Own home	475	75	363	60	838	68
Rent	68	11	166	27	234	19
Live free	73	12	67	11	140	11
Other	11	2	13	2	24	2

*Less than 0.5 percent.

**See Objectives and Procedures, page 6.

Health Ailments

The first question concerning health ailments was, "Do you now have any ailment or health condition that bothers you either all the time, or off and on?" If the respondent answered yes, he was then asked to name the kinds of ailments which bothered him.

Slightly fewer than 7 out of 10 persons in the study (68 percent) reported that they were bothered, either all the time or off and on, with one or more health ailments. One out of 4 persons (26 percent) reported no ailments. Almost half of the total sample (45 percent) reported one ailment, almost 1 out of 4 persons (23 percent) reported two or more ailments, and the remaining 6 percent did not respond. The 835 older persons who reported one or more ailments named an average of 1.4 per person (Table 2).

The six health ailments of highest prevalence were (in descending order) arthritis and rheumatism, heart trouble, blood pressure, urological difficulties, problems of the digestive system, respiratory ailments, and ailments associated in some way with the skeletal structure (Table 2). Almost 1 out of 4 persons in the total sample (24 percent) named health ailments associated with the heart, such as heart trouble, blood pressure, hardening of the arteries, and poor circulation. About 1 out of 6 older persons (16 percent) named arthritis or rheumatism as bothersome health ailments. Respiratory, urinary, and digestive ailments were each named by 6 percent of the total sample, and 5 percent reported broken bones or other skeletal problems. The categories of the lowest incidence (1 percent each) were hearing

Table 2. Reported Health Ailments of Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959, by Sex and Residence

Ailment	Sex				Residence				Total Sample	
	Male		Female		Rural		Urban			
	No.	Pct.*	No.	Pct.*	No.	Pct.*	No.	Pct.*	No.	Pct.*
Arthritis, rheumatism	65	12	128	18	109	17	84	14	193	16
Heart trouble	75	14	92	13	90	14	77	13	167	13
Blood pressure	45	9	88	13	82	13	51	8	133	11
Urological	34	6	45	6	51	8	28	5	79	6
Digestive system	35	7	44	6	37	6	42	7	79	6
Respiratory	36	7	36	5	49	8	23	4	72	6
Skeletal structure	33	6	34	5	35	6	32	5	67	5
Eye trouble	24	5	29	4	25	4	28	5	53	4
Nervousness	16	3	35	5	31	5	20	3	51	4
Rupture, hernia	20	4	11	2	17	3	14	2	31	3
Diabetes	8	2	13	2	7	1	14	2	21	2
Hearing trouble	8	2	10	1	5	1	13	2	18	1
Foot trouble	7	1	10	1	6	1	11	2	17	1
Throat trouble	7	1	8	1	12	2	3	**	15	1
Other ailments	68	12	86	12	69	11	85	14	154	12
None reported	138	26	187	27	116	19	209	34	325	26
No response	43	8	33	5	50	8	26	4	76	6
Number of cases	(532)		(704)		(627)		(609)		(1,236)	

*Percentages exceed 100 because of multiple responses.

**Less than 0.5 percent.

difficulties, foot trouble, and health problems associated with the throat. Only one person said he had dental problems and this was labelled "toothache." The absence of reported denture ailments suggests that the older people surveyed did not include these under the term "health ailments."

Twelve percent of the total sample reported a variety of health conditions and ailments which could not be classified into any of the 14 categories in Table 2. These were placed in an "other" category, which included such ailments as glandular disturbances, paralysis, female disorders, cancer, gall stones, allergies, Parkinson's disease, tumors, and headaches and other pains.

Rural-Urban Differences. The problem of the relative health status of rural and urban persons has been a subject of study for many years. Rural living, it is generally believed, provides a more favorable environment for maintaining physical health than does the city. The rural person has the advantages of fresh air, sunshine, outside work, and lack of congestion. On the other hand, many rural persons don't have the kinds of health facilities available to those living in urban centers. Loomis and Beegle concluded a careful examination of rural health data with the statement, "Despite the natural advantages of rural life, in many respects rural people in the United States are less healthy than urban."[3]

The findings in this study support that conclusion with respect to older persons. Those living in the rural area reported more

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[3]Charles P. Loomis and J. Allan Beegle, Rural Social Systems, (New York: Prentice-Hall, 1951), p. 760.

health ailments than did those in the urban area. Seventy-three percent of rural persons reported one or more ailments, compared with 62 percent for urban residents. One out of 3 urban persons (34 percent) did not report any ailments, but only 1 out of 5 rural persons (19 percent) said they were not bothered with poor health (Table 2).

Compared with urban residents, rural men and women reported slightly more difficulties with blood pressure (13 to 8 percent), a slightly higher prevalence of arthritis and rheumatism (17 to 14 percent), slightly more respiratory ailments (8 to 4 percent), and slightly more urological problems (8 to 5 percent). Ailments in the remaining illness categories were approximately equal for rural and urban respondents (Table 2).

Not only did rural persons assess their physical health as poorer than that of urban persons but, for rural man, ill health appeared to occur at an earlier age. For example, 71 percent of the rural men aged 60 to 64 reported that they were bothered by one or more health ailments. In contrast, only 49 percent of the urban men in this age category reported ailments, a difference of 22 percentage points, which was substantially above the rural-urban differences in the age category 65 and over.

The relatively high prevalence of ailments among rural men aged 60 to 64 is probably a reaction to greater demands of the rural environment as compared with the urban. Agricultural work requires considerable physical strength and agility. Occupations in metropolitan centers probably do not place such strong emphases upon

physical prowess. Peak performance is probably reached at an earlier age in rural areas. With the normal decline in physical vigor and the consequent inability to perform as well as in the past, the rural male probably becomes aware of his physical incapacities at an earlier age than does the man living in the city.

Many empirical studies in the United States attest that persons at lower economic levels have considerably less access to means of achieving many dominant American values, including that of health, than do persons at higher economic levels.[4] The persons in this study are no exception to this generalization. Among both rural and urban respondents, socio-economic status was related to the prevalence of reported health ailments, and the differences by socio-economic status were approximately equal in both rural and urban areas. In the rural area, 76 percent of the persons of low socio-economic status reported one or more health ailments, but only 63 percent of high socio-economic status persons made this report. In the urban area, the proportions of low and high socio-economic status persons who reported one or more ailments were 71 and 60 percent, respectively.

Age Differences. It is generally recognized that physical vigor declines with advancing age. To what extent does poor health increase with age among noninstitutionalized older persons living in the community?

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[4] See Leo F. Schnore and James D. Cowhig, "Some Correlates of Reported Health in Metropolitan Centers," Social Problems Vol. VII, No. 3, Winter, 1959-60, pp. 218-225.

In this research, the proportions reporting one or more health ailments increased slightly with age. In the youngest age category (60 to 64), 65 percent reported that they were bothered with one or more health ailments. This proportion increased to 70 percent in the oldest age category (75 and over), a difference of only 5 percentage points. Apparently those persons who survived to advanced age and continued to live in the community experienced little change in their health condition beyond age 60. If this study had included institutionalized older persons, probably a higher incidence of health ailments in the oldest age category would have been reported.

Sex Differences. It is commonly alleged in the United States that women are more inclined to reveal and report health ailments than are men. It is asserted that men tend to ignore minor symptoms and exhibit a greater reluctance to being called sick. This tendency probably reflects the views men hold of the masculine role in American society and the view women hold of the feminine role. Most young and middle-aged males probably do not consider it "manly" to complain of minor aches and pains. Among young and middle-aged women, on the other hand, such confessions probably do not violate their conception of the feminine role.

Do older men and women maintain this difference in viewpoint? The findings in this study suggest that they do not. Very slight differences were found between men and women in reported health ailments. Sixty-six percent of the men and 69 percent of the women reported one or more ailments, and almost equal proportions of men and of women reported they had no bothersome ailments (26 and 27

percent, respectively). In only two of 15 categories of ailments shown in Table 2 were there any appreciable difference between men and women, and the difference was slight. A slightly greater proportion of women than of men reported they suffered from arthritis and rheumatism (18 and 12 percent) and from difficulties with blood pressure (13 and 9 percent).

Role Impairments

It is generally recognized that human beings vary widely in their reactions to health problems. Some persons "give in" easily to physical complaints and withdraw from their normal role activities. Others disregard minor symptoms, continue with their usual tasks and duties, and curtail activities only when seriously afflicted. It is pertinent to examine the assessments older persons made of their role impairments. To what extent have they cut down on their activities? What reasons do they offer? Do their self-assessed role impariments coincide with their self-assessed health status? To what extent do residence and socio-environmental factors influence their role impairments?

The persons interviewed responded to a number of questions concerning three aspects of role impairments: (1) a general evaluation of their reduction in activities, (2) their reduction in work activity, and (3) their ability to get around.

One question was, "Have you cut down on any of your activities because of your health?" Almost 3 out of 5 older persons (59 percent) replied they had. The 724 older persons who said they had cut down

on their activities were asked which ones they had reduced. They named an average of 1.6 activities which fell into three major categories. Almost 3 out of 4 persons said they had cut down on their work. About 1 out of 3 said they had reduced such strenuous activities as athletics, hunting, and gardening. About 1 out of 3 reported that they had reduced their visiting and social life.

Reduction in work activities was determined by asking the men and women, "What is your present major occupation?" In response to this question, 47 percent of the men and 22 percent of the women volunteered the information that they were fully retired. Those who named a present major occupation were then asked, "Are you partly retired?" To this question an additional 26 percent of the men and 29 percent of the women replied yes. Thus 73 percent of the men and 51 percent of the women considered themselves either fully or partly retired. Since retirement for all but a few women was from household duties, further discussion of impairments in work roles is limited to the men.

Another index of role impairment was obtained by asking, "Which one of the following statements best describes your ability to get around at the present time?" Five choices were offered, ranging from "Able to go practically any place" to "Stay in bed all the time" (Table 3). Three out of 4 older men and women (74 percent) said they were able to go practically any place they wanted. One out of 6 (16 percent) said they could get around the house, but seldom went out. One out of 20 (5 percent) said they could get around the house, but with difficulty. Two percent of the older men and women were confined to a chair most of the day, and one percent were confined to their bed. (Two percent did not respond to the question.)

Table 3. Ability to Get Around of Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Ability to Get Around	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Able to go practically any place	451	72	464	76	918	74
Get around house, but seldom go out	100	16	91	15	194	16
Get around house, but with difficulty	38	6	24	4	68	5
Confined to chair most of day	13	2	12	2	18	2
Stay in bed all the time	6	1	6	1	9	1
No response	19	3	12	2	29	2
Total	627	100	609	100	1,236	100

Although substantial proportions of the respondents reported they had reduced their activities because of their health and an even greater proportion reported they had cut down on their work activity, these role impairments apparently did not seriously interfere with their ability to get around. Only 1 out of 4 evidenced any restriction in their ability to get around, and of these the greatest proportion reported that they seldom went out (Table 3).

Health Status as a Factor in Role Impairments. As might be expected, the health status of the older persons was an important factor in their assessment of their role impairments. A markedly greater proportion of men and women with one or more health ailments than of those with no ailments reported role impairments. For example, almost 3 out of 4 persons with health ailments (73 percent) reported that they had reduced their activities because of their health. In contrast, only 1 out of 4 persons with no ailments (26 percent) made this statement. For these latter persons their health condition probably was not poor enough to cause them to report ailments, or they may not have been aware of any specific problems. However, their health may have deteriorated sufficiently to interfere with their usual activities and cause them to reduce them.

The impact of health condition upon work activity is more difficult to assess. Retired men may be in poorer health than those not retired, but this does not necessarily imply that poor health brought about their retirement. The health condition may have developed after retirement took place. The 387 men who were fully or partly retired were asked, "Why did you retire?" It is recognized that responses to

such a question may reflect faulty memories, since some of the men had been retired for many years. The men gave a variety of reasons for retiring, but the largest proportion (66 percent) said they had retired because of their health or inability to work. A small proportion (16 percent) gave age, and very slight percentages gave other reasons, such as "no work available," "retirement pension," "company policy," and "wanted to retire" (Table 5).

The health status of the respondents appeared to have a marked impact upon their ability to get around. Almost all (92 percent) of the 325 older men and women who reported no health ailments said they were able to go practically any place. In contrast, only 66 percent of the 835 older persons who reported one or more health ailments made this assertion. Twenty-one percent of the respondents with ailments said they seldom went out, but only 5 percent of those with no ailments made this statement. Eight percent of the persons with ailments reported they could get around the house, but with difficulty, but only 1 percent of the persons with no ailments reported this impairment. The remaining percentages of those with ailments were confined to a chair most of the day (2 percent) or confined to a bed (1 percent). Two percent of the men and women with and without ailments failed to respond to the question on their ability to get around.

Rural-Urban Differences. Since it has been suggested that the more rigorous demands of the rural environment had an adverse effect upon the physical health of the rural men and women, it might be expected that the rural environment also would have an adverse effect

Table 4. Retirement Status of Men Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Retirement Status	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Partly retired	107	34	33	15	140	26
Fully retired	127	41	120	55	247	46
Total	234	75	153	70	387	72
Number of cases	(312)		(220)		(532)	

Table 5. Reasons for Retiring Given by Men Aged 60 and Older Casey County and Lexington, Kentucky, 1959

Reasons for Retiring	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Health, not able to work	195	83	62	40	257	66
Age	14	6	46	30	60	16
No work available	--	--	16	11	16	4
Wanted to retire	--	--	14	9	14	4
Retirement pension	6	3	7	5	13	3
Company policy	1	*	8	5	9	2
No response	18	8	--	--	18	5
Total	234	100	153	100	387	100

*Less than 0.5 percent

upon the roles performed by rural people. Thus, role impairments probably would be greater among rural than among urban older persons, and would probably occur at an earlier age for rural than for urban men.

These expectations are supported by responses to several questions relative to role impairments. A substantially larger proportion of rural than of urban men and women reported that they had reduced their activities because of their health (72 and 45 percent, respectively). A slightly greater proportion of rural men than of urban men considered themselves partly or fully retired (75 and 70 percent, respectively, (Table 4). Differences between rural and urban older persons in ability to get around were slight but in the direction expected. Seventy-two percent of the rural men and women said they could go practically any place they wanted, but 76 percent of the urban persons made this statement.

Role impairments among rural men appeared to occur at an earlier age than they did among urban men. In the 60 to 64 age group, 75 percent of the rural men said they had reduced their activities because of their health. Only 27 percent of the urban men in the same age group made this statement, a difference of 48 percentage points, which was considerably larger than the difference between the rural and the urban men aged 65 and over, i.e., 32 percentage points.

Among the men, partial retirement, but not full retirement, occurred at an earlier age for rural than for urban men. For example, 37 percent of the rural men aged 60 to 69 reported themselves partly retired, but only 9 percent of the urban men in this age category made this statement, a percentage difference of 28 points. Among the men aged 70 and

over, the rural exceeded the urban men in the proportions partly retired by only 11 percentage points.

The earlier age at which rural men chose partial retirement implies that rural men probably have greater choice over their work status than urban men. Since a large majority of the rural men were self-employed, they could probably make their own decisions to accept part-time retirement. If there were compulsion to make this decision it was based on their evaluation of their health status and their assessment of their ability to perform adequately in their environment.

The urban men, on the other hand, appeared to be more subject to involuntary full-time retirement. A larger proportion of urban than of rural men were fully retired (55 to 41 percent, Table 4). Forty-six percent of the urban men gave "age," "no work available," and "company policy" as reasons for retiring (Table 5), an indication of the involuntary nature of their retirement. In contrast, only 6 percent of the rural men gave these reasons.

The hypothesis that role impairments occur at an earlier age among rural than among urban older men was not supported by the data on "ability to get around." Differences between rural and urban persons in their "ability to get around" were very slight, and there was no evidence to indicate that handicaps in such an ability occurred at an earlier age for rural than for urban men.

Low socio-economic status respondents appeared to experience more role impairments than did the high socio-economic status persons. In both rural and urban areas, a greater proportion of low than of high socio-economic status persons said they had reduced their activities

because of their health, but the differences were more pronounced in the rural than in the urban area. For example, the proportions of low and high socio-economic status rural persons who had reduced their activities were 76 and 54 percent, respectively. The proportions of low and high socio-economic status urban persons who had reduced their activities were 49 and 44 percent, respectively.

Retirement patterns differed very slightly between low and high socio-economic status men in both rural and urban areas, with one exception. Among urban men, a greater proportion of low than of high socio-economic status males were fully retired (61 to 47 percent), a difference which probably reflected the more compulsory nature of retirement for low than for high socio-economic status men in metropolitan environments.

Among both rural and urban respondents, socio-economic status substantially influenced their judgement of their ability to get around. The proportions of rural persons of low and high economic levels who said they could go practically any place were 69 and 86 percent, respectively. Among urban persons, 63 percent of low and 79 percent of high socio-economic status persons said they were able to go practically any place.

Age Differences. As might be expected, role impairments of the men and women increased markedly with advancing chronological age. In the four age categories 60 to 64, 65 to 69, 70 to 74, and 75 and over, the proportions of men and women who had reduced their activities because of their health were 48, 60, 61, and 66 percent; the proportions of men who said they were partly or fully retired

were 27, 85, 93, and 94 percent; and the proportions of men and women who stated they could go practically any place were 86, 81, 76, and 56 percent.

Role impairments reported by men and women increased more sharply with age than did health ailments. The proportion of persons reporting one or more health ailments increased by only 5 percentage points between the age categories of 60 to 64 and 75 and over. In contrast, the proportions reporting a reduction of activities in the youngest and the oldest age groups increased by 18 percentage points; the proportion of men retired increased by 67 percentage points; and the proportion who could go practically any place decreased by 30 percentage points.

Apparently the older persons in this study were much more sensitive to, and much more aware of, the curtailments in their activities which occurred with advancing age than they were of changes in their physical health status. Many of the respondents probably experienced loss of physical vigor and deterioration of their general health condition with advancing age, but may not have been bothered with any specific ailments. On the other hand, perhaps many persons in the oldest age categories may have considered their health ailments "normal" for persons of their years and therefore failed to report them.

Despite the marked increase in role impairments with age, a substantial portion of the oldest men and women (aged 75 and over) reported no role impairments. For example, about one-third in this age group reported no reduction in activities because of health, and

over two-fifths said they were able to go practically any place they wanted. Apparently these persons, in spite of their advanced age, were able to maintain their activities in their homes and in their communities with a high degree of effectiveness.

Sex Differences. The masculine role in American society is focused on earning a living and, in general, on activities outside the home situation. The feminine role traditionally is centered in the home, despite the large number of women who have entered the labor force in recent decades. With these differences between masculine and feminine roles, it might be expected that men would differ from women in role impairments of later life. This expectation is partially supported. No significant difference was found between men and women in the proportions who had reduced their activities because of their health (61 and 58 percent). However, more of the men than of the women said they could go practically any place they wanted to (80 and 70 percent), a difference which probably reflects the more mobile role of the American male.

Perceptions

The perceptions held by a person provide important clues about his mental outlook, his orientation to life, and his behavior in a variety of situations. This study does not offer an exhaustive appraisal of the perceptions of the men and women, but it does provide a basis for judging their outlook. To what extent is the mental outlook of noninstitutionalized older persons affected by their

physical health status and by such socio-environmental conditions as age, sex, and place of residence?

Data obtained centered on such questions as the perceptions the men and women held of their main problem, the advantages and disadvantages they saw in aging, and their feelings of discouragement and pessimism. One question was worded: "What would you say are the most important problems facing you today?" More than one-third of the men and women (38 percent) reported that they had no serious problems at the present time. The 773 persons who mentioned problems named an average of 1.4 per person.

Health was perceived by the largest proportion of respondents as the most important (42 percent). "Finances" was the most important problem identified by the second largest percentage (23 percent). Nine percent of the men and women gave responses which indicated they felt rejected, 6 percent indicated they felt useless, and 11 percent gave responses of a miscellaneous nature which were placed in an "other" category (Table 6).

The responses of the men and women relative to the advantages and disadvantages of aging provided some clues about how they viewed their life situation. They were asked, "What do you think are some of the advantages of becoming older?" This question was followed by another, "What do you think are some of the disadvantages of becoming older?"

Over half the respondents (53 percent) saw no advantages to aging. One third (34 percent) named advantages, chief of which were "greater wisdom and experience" (15 percent), "more free time" (6

Table 6. Most Important Problems of Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Problems	Rural		Urban		Total	
	No.	Pct.*	No.	Pct.*	No.	Pct.*
No serious problems	207	33	256	42	463	38
Health	339	54	177	29	516	42
Finances	135	22	149	25	284	23
Feel rejected	63	10	43	7	106	9
Feel useless	25	4	43	7	68	6
Other	50	8	85	14	135	11
Number of cases	(627)		(609)		(1,236)	

*Percentages exceed 100 because of multiple responses.

percent), and "less responsibility" (5 percent). Very small proportions (2 percent each) named such advantages as "fewer serious problems," "religion more important," and "retirement benefits" (Table 7).

Eighty-seven percent of the respondents saw disadvantages do aging, and they named an average of 1.4 disadvantages per person. The chief disadvantages perceived were "poorer health" (53 percent), "can't get around" (27 percent), "can't work or make money" (23 percent), and "dependent on others" (9 percent). Only 3 percent of the men and women saw no disadvantages to aging. Very small percentages named such disadvantages as "loneliness," "feel rejected," and "insecurity" (Table 8).

The existence of a pessimistic outlook on life was assessed from the responses of the older persons to the following statement: "In spite of what some people say, the life of the average man or woman is getting worse, not better." The respondents were asked if they agreed or disagreed with the statement. Those who agreed, it is inferred, registered a sense of pessimism. Slightly more than 2 out of 5 older persons (41 percent) agreed with the statement—a rather substantial proportion of older men and women who had a pessimistic outlook.

Health Status as a Factor in Perceptions. Sickness, injury, and health ailments, it is well known, not only prevent a person from engaging in many of his normal activities, but such health impairments are usually accompanied by pain, discomfort, and emotional stress. It might be expected that older persons who manifested health ailments would hold less favorable viewpoints about their life situation than would those with no ailments.

Table 7. Advantages of Aging to Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Advantages	Rural		Urban		Total	
	No.	Pct.*	No.	Pct.*	No.	Pct.*
No advantages	382	61	268	44	650	53
Greater wisdom and experience	42	7	137	23	179	15
More free time	--	--	69	11	69	6
Less responsibility	32	5	31	5	63	5
Fewer serious problems	--	--	28	5	28	2
Religion more important	27	4	--	--	27	2
Retirement benefits	16	3	13	2	29	2
Enjoy family	10	2	4	1	14	1
Other	16	3	2	**	18	1
Don't know	102	16	99	16	201	16
Total cases	(627)		(609)		(1,236)	

*Percentages exceed 100 because of multiple responses.

**Less than 0.5 percent.

Table 8. Disadvantages of Aging to Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Disadvantages	Rural		Urban		Total	
	No.	Pct.*	No.	Pct.*	No.	Pct.*
Poorer health	256	41	399	66	655	53
Can't get around	90	14	243	40	333	27
Can't work or make money	174	28	110	18	284	23
Dependent on others	63	10	48	8	111	9
Loneliness	16	3	33	5	49	4
Feel rejected	13	2	38	6	51	4
Insecurity	3	1	15	3	18	2
Other	10	2	27	4	37	3
No disadvantages	22	4	19	3	41	3
Don't know	83	13	37	6	120	10
Total cases	(627)		(609)		(1,236)	

*Percentages exceed 100 because of multiple responses.

This expectation is supported by the data. Respondents with no health ailments tended to have few serious problems, saw many advantages to aging, and were rather optimistic about their life situation. In contrast, respondents who reported health ailments tended to have many serious problems, saw little or no advantage to aging, and held a pessimistic outlook on life. For example, a markedly larger proportion of respondents with no ailments, than of those with ailments, said they had no serious problems (63 and 27 percent); a slightly smaller proportion of those with no ailments than of those with ailments saw no advantages to aging (49 and 54 percent); and a substantially smaller proportion of respondents with no ailments than of those with ailments held a pessimistic outlook on life (29 and 46 percent).

Rural-Urban Differences. It is traditionally believed that rural living in the United States is more advantageous to older persons than urban living. It is alleged that the simplicity and serenity, the warmth of friendship and understanding, and the emotional security of close family and friends in rural areas provides ideal living conditions for older people.

The present findings suggest that this contention may be seriously questioned. Rural respondents held decidedly less favorable perceptions than did urban persons on a variety of topics. Compared with urban persons, rural persons reported they were troubled with more serious problems and evidenced much greater concern about their health (Table 6). Rural persons perceived substantially fewer advantages to aging than did urban persons (Table 7). Urban persons gave greater stress than rural persons to such advantages as "greater wisdom and

experience," "more free time," and "fewer problems" (Table 7). Although both rural and urban respondents perceived poor health as the chief disadvantage of aging, urban persons gave greater emphasis to this (Table 8), which suggests that for rural people health is probably a general problem affecting other age groups as well. Rural persons perceived economic problems as a greater disadvantage of aging than did urban men and women, and urban persons said the inability to get around was a greater disadvantage to them than did the rural men and women (Table 8). A pessimistic outlook was more prevalent among rural than among urban respondents. Forty-eight percent of the rural persons agreed with the statement on pessimism, but only 33 percent of the urban people gave this response.

The perceptions of both rural and urban persons varied markedly with socio-economic status. The proportions of low and high socio-economic status persons in the rural area who said they had no serious problems were 29 and 50 percent, respectively. Among the urban persons, the proportions of low and high socio-economic status men and women who said they had no serious problem were 27 and 44 percent, respectively.

Socio-economic status differences were less marked concerning the advantages of aging. The proportions of low and high socio-economic status persons in the rural area who perceived "no advantages to aging" were 69 and 59 percent, respectively. In the urban area, the proportions of low and high socio-economic status persons who recognized no advantages to aging were slight—49 and 43 percent, respectively.

Older persons of low economic level evidenced a substantially more pessimistic outlook on life than did older persons of high economic

level, in both rural and urban areas. Approximately 50 percent of low socio-economic level persons in both rural and urban areas agreed with the statement on pessimism, compared with 35 percent of high socio-economic status persons in both communities.

Age Differences. It is commonly alleged in the United States that a person's perceptions and viewpoints become more pessimistic with older age. The findings in this study offer little or no support to this allegation. No statistically significant differences in perceptions were found between the youngest and the oldest aged persons in the sample. Approximately equal proportions of the youngest (age 60 to 69) and of the oldest (age 70 and over) persons reported "no serious problem" and "no advantages to aging." A pessimistic outlook was slightly associated with age. Thirty-six percent of the respondents aged 60 to 64 agreed with the statement on pessimism, and agreement increased to 42 percent in the oldest age category (75 and over), an increase of only 6 percentage points, which was not statistically significant.

Sex Differences. Since the masculine and feminine roles differ substantially in the United States, it might be expected that important differences exist between older men and women in their perceptions and outlook. The present findings offer little support to this expectation. No statistically significant differences were found between the proportions of men and women who reported no serious problem (38 and 37 percent) and the proportions who saw no advantages to aging (54 and 52 percent).

However, a significant difference was found between men and women in their feelings of pessimism. Men were more pessimistic in outlook than women. Forty-five percent of the men agreed with the statement on pessimism, but only 38 percent of the women gave an affirmative response. This difference between the men and the women probably reflects their reactions to their status losses in society. The masculine role in American society is probably more strongly identified with achievement than is the traditional feminine role. With advancing years, both men and women are expected to give up the roles and statuses of middle age and accept those associated with older age which have less prestige. This loss is probably a greater psychological blow to men than women, resulting in a more pessimistic outlook among the men.

HEALTH SERVICES, NEEDS, AND COSTS

Health services available, the effectiveness with which these services fulfill the medical needs of citizens, and financial costs of these services are important and pressing problems for many persons in the United States, especially for older persons. This section of the report presents data on certain aspects of these problems for noninstitutionalized older persons.

Health Services

The older persons were asked if, during five years preceding the interview, they had consulted a doctor, had made use of a hospital, or if a nurse or friend had come to their house to help them when

when they were ill. Slightly more than half of the persons in the study (54 percent) said they had consulted a physician during the five years preceding the survey, less than one-third (31 percent) stated they had made use of a hospital, and about one-fifth (22 percent) reported that a nurse or friend came to their house to help them.

The use made of health services and facilities by the older persons in the community varied with a number of factors. As might be expected, those who had the greatest need, that is, those who were ill, made the greatest use of the services. For example, 65 percent of the respondents who reported one or more health ailments said they had visited a doctor in the five years preceding the interview, but only 36 percent of those with no health ailments had done this. Seventy-five percent of the respondents with one or more ailments had been to a hospital in five years, but only 23 percent of those with no ailments made this statement. Twenty-seven percent of the older people with health ailments reported that a nurse or friend came to their house to help them during an illness in five years, but only 15 percent of those with no ailments stated this.

Age was not a factor in the use made of health services. Both younger and older aged persons in this study made equal use of physician, hospital, or a nurse or friend. Men and women made equal use of a physician and a hospital, but slightly more of the women than of the men reported that a nurse or a friend came to their house to help them during an illness (26 to 17 percent).

The use of health services varied very slightly by place of residence. Persons in the rural area made slightly greater use of a

physician and a nurse or friend when they were ill, while the urban persons made slightly greater use of a hospital. For example, 60 percent of rural persons but only 47 percent of urban persons made use of a doctor. Twenty-five percent of the rural persons reported that a nurse or a friend came to help them when they were ill, compared with 19 percent for the urban persons. On the other hand, 34 percent of the urban persons made use of a hospital, compared with 29 percent for the rural people. The slight differences in the health services used by older persons in rural and urban areas suggest that rural persons are probably not restricted to the health facilities existing within their county.

In the rural area, use made of the three health services examined varied slightly with socio-economic status. The proportions of low and high socio-economic status rural persons who consulted a doctor, who made use of a hospital, and who had a nurse or a friend help them in illness were, respectively, 61 and 55 percent, 27 and 40 percent, and 24 and 32 percent. In the urban area, equal proportions of low and high socio-economic status persons consulted a physician and had a nurse or a friend help them during an illness, but slightly more of high than of low socio-economic status persons made use of a hospital (34 and 28 percent).

Health Needs

Assessment of the health needs of older persons presents a problem of considerable importance and difficulty. The identification of health needs would provide a basis for health programs. The ideal

method would be for each older person in the United States to present himself periodically to a physician for examination. Obviously, this method is impractical. The limited supply of physicians in the United States, especially in rural areas, would be inadequate to fulfill this demand. An alternate method is to interview samples of older persons concerning their health needs, a method subject to the many errors of self-assessment.

The persons in this study responded to two questions, which, it is inferred, probed to some degree their assessment of their health needs. One question was, "Do you feel the need of health care in addition to that you are now getting?" Those who replied yes were asked to name the kinds of health care they needed.

One out of 5 older men and women in the total sample (19 percent) said they needed health care in addition to what they were presently receiving. Three out of 4 persons (75 percent) said they did not need additional health services, and the remaining 6 percent did not know or did not respond. The small percentage who needed additional health care, which is only slightly in excess of the proportion reported in another recent survey,[5] suggests a question. Are older persons able to assess their own medical and health needs? Their responses

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[5]James W. Wiggins and Helmut Schoeck, "A Profile of the Aging: USA," Emory University, a paper presented to the Fifth Congress of the International Association of Gerontology, San Francisco, Calif., August 11, 1960. See also "Science and Politics: AMA Attacked for Use of Disputed Survey in 'Medicare' Lobbying," Science, 132: 604-5 (1960). From interviews with 1,492 persons 65 years of age or older, these authors found that only 8 percent said they had medical needs which were "not being taken care of."

no doubt are subject to many errors, the most important being the inability of a layman to make legitimate judgements in the professional field of medicine. In addition, many older persons probably believe that their health condition is "normal and natural" for persons of such age and should be left untreated, or they may experience no specific symptoms of ill health and thus are unaware of any health needs.

The 232 older persons who felt they needed additional health services mentioned a variety of needs (Table 9). The most common health need stated was "see a doctor more often" (72 percent). The second most common health need was for medication (21 percent), and substantially more of the urban than of the rural older persons expressed this need (40 and 5 percent, respectively). Other health needs mentioned were for nursing care (8 percent), for an operation (7 percent), health finances (4 percent), for hospitalization (1 percent), and "other" (7 percent).

It appears that even among those older persons with health ailments the majority felt they were receiving adequate health care. It has been pointed out that 7 out of 10 older persons (68 percent, Table 2) reported that they were bothered either all the time or off and on with one or more health ailments. Among the older persons who reported ailments, only 1 out of 4 (25 percent) said they felt the need for additional health services. This proportion, however, substantially exceeded the proportion of older persons with no health ailments who said they needed additional health care (i.e., 6 percent).

Women appeared to be as well satisfied with the health care they received as did men. Approximately equal proportions of women and of

Table 9. Kinds of Health Services Needed by Persons Aged 60 and Older, Casey County and Lexington, Kentucky, 1959

Health Services Needed	Rural		Urban		Total	
	No.	Pct.*	No.	Pct.*	No.	Pct.*
To see a doctor more often	89	71	79	74	168	72
Need medication	6	5	43	40	49	21
Nursing care	9	7	10	9	19	8
Need an operation	9	7	7	7	16	7
Health finances	8	6	--	--	8	4
Hospitalization	2	2	--	--	2	1
Other	5	4	11	10	16	7
Don't know	9	7	6	5	15	7
Number of cases needing health services	(125)		(107)		(232)	

*Percentages exceed 100 because of multiple responses.

men reported that they felt they needed health care in addition to what they were receiving (20 to 18 percent). The expressed need for additional health services varied little with age. There was a slight tendency for needs for additional health services to decrease in the oldest age category. For example, 20 percent of the men and women aged 60-64 felt they needed additional health services. This proportion remained approximately constant in the age categories 65 to 69 and 70 to 74, but decreased slightly in the oldest age group (75 and over) to 16 percent.

Rural respondents appeared to feel no greater dissatisfaction with the health care they were receiving than did urban men and women. Approximately equal proportions of rural and of urban persons felt the need for additional health services (20 to 18 percent). However, rural men aged 60-64 differed rather markedly from urban men in the same age category in their expressed need for additional health care. Twenty-five percent of the rural men aged 60 to 64 said they needed health care in addition to what they were receiving, but only 10 percent of the urban men in this age group made this statement. It appears the need for health services among the younger aged rural men, compared with younger aged urban men, coincided with their report of more health ailments, their greater role impairments and their slightly less favorable mental outlook.

The expressed need for additional health services varied slightly with socio-economic status in both rural and urban areas. The proportions of low and high socio-economic status persons in the rural area who needed additional health care were 22 and 9 percent; in the urban area the proportions were 30 and 15 percent, respectively.

Health Insurance

Slightly more than one-third of the respondents (36 percent) reported they were covered by health insurance. Thirteen percent of the policies in effect provided hospitalization benefits only, 27 percent provided hospitalization and surgical benefits, and the remaining 60 percent provided hospitalization, surgical, and "other" benefits. The average annual premium reported on the policies was $75. Eighty-four percent of the men and 46 percent of the women covered by health insurance said they paid the premiums themselves, and the costs of the remainder were paid by family members.

Health insurance coverage varied with health condition, age, rural-urban residence, socio-economic status, income, but not with sex. Approximately equal proportions of men and women, in both rural and urban areas, were covered by health insurance (Table 10). The proportions of respondents with health ailments and with no health ailments who were covered by health insurance were 48 and 32 percent. Coverage decreased with age from 46 percent of the youngest aged persons (60 to 64) to 26 percent of the oldest aged persons (75 and over).

Substantially more of the urban than of the rural respondents were covered by health insurance (52 and 21 percent, Table 10). In both areas coverage varied with socio-economic status and with income. In the rural area, the proportions of respondents of low and high socio-economic status who were covered were 17 and 37 percent, and the proportions of respondents with low (less than $1,000) and high

Table 10. Persons Aged 60 and Older Covered by Health Insurance Casey County and Lexington, Kentucky, 1959, by Sex

Insurance Coverage and Sex	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Male						
Insured	68	22	122	55	190	36
Not insured	238	76	87	40	325	61
No response	6	2	11	5	17	3
Female						
Insured	62	20	195	50	257	37
Not insured	242	77	175	45	417	59
No response	11	3	19	5	30	4
Total						
Insured	130	21	317	52	447	36
Not insured	480	77	262	43	742	60
No response	17	2	30	5	47	4

($1,000 or more) annual incomes were 14 and 33 percent. In the urban area, the proportions of respondents of low and high socio-economic status who were covered were 22 and 57 percent, and the proportions of respondents with low (less than $1,000) and high ($1,000 or more) annual incomes were 33 and 63 percent.

Other Medical Costs

Respondents were asked to estimate the amount of all medical costs, excepting health insurance, for the 12-month period preceding the interview. For the total sample of 1,236 persons this amounted to an average of $42 per person. One out of five persons (19 percent) reported that they had no medical expenses during the 12 months preceding the survey. Three out of 4 persons with medical expenses (74 percent) said that they paid these bills entirely by themselves, although the men exceeded the women by a slight margin (78 to 71 percent). Eleven percent of those with medical bills in the preceding year said these bills were paid entirely by insurance, 8 percent said their medical bills were paid by relatives, and 7 percent reported that their medical bills, which averaged $44 were still unpaid.

Annual estimated medical costs (other than insurance) of the persons in the study varied with health condition, sex, age, rural-urban residence, and socio-economic status. As would be expected, the persons who reported one or more health ailments paid out more money for their annual medical bills than did those persons who reported no health ailments. Those who reported no health ailments

said they paid, on the average, $13 for a year's medical assistance. In contrast, those who reported one or more ailments said they paid, on the average, $54 for medical bills.

The average annual medical cost to the women exceeded that of the men by a rather substantial margin ($48 to $32). The amounts paid for medical expenses varied by age group, but there was no consistent pattern. The average annual medical bills for the age groups 60 to 64, 65 to 69, 70 to 74, and 75 and over were $45, $32, $54, and $42 respectively.

Rural persons paid slightly less than urban persons for their annual medical services (average $38 and $47, respectively). In the rural area, persons of low socio-economic status paid less for medical costs than did rural persons of high socio-economic status (average $35 and $48). In the urban area practically no difference was found between the medical costs of low and high socio-economic status groups (average $46 and $47). Annual medical expenses did not vary with the level of income of the older persons in either the rural or the urban area. In both areas, those persons with incomes of less than $1,000 per year paid approximately the same amount for their medical costs as did those with annual incomes of $1,000 and over.

SUMMARY

By means of survey data, this report has assessed four aspects of health of a sample of 1,236 noninstitutionalized men and women aged 60 and over living in rural and urban communities.

(1) Selected Socio-environmental Factors in Physical Health. Almost 7 out of 10 respondents (68 percent) reported they were bothered, either all the time or off and on, with health ailments. Six percent of the sample did not respond to the question on health ailments. Rural persons reported more health ailments than did urban persons and, in both rural and urban areas, persons of low socio-economic status reported more ailments than did persons of high socio-economic status. Ill health appeared to occur at an earlier age for rural than for urban men. Health ailments did not increase significantly with age, and older men did not differ significantly from older women in their reported health ailments.

(2) Physical Health and Social and Psychological Behavior. A markedly greater proportion of respondents with health ailments than of those with no ailments reported they had reduced their activities and had difficulty in getting around. Poor health was the main reason for retiring given by the men. Respondents with no health ailments tended to have fewer serious problems, perceived more advantages to aging, and were less pessimistic about their life situation than were persons who reported health ailments.

(3) Selected Socio-environmental Factors in Role Impairments and Perceptions. Rural persons compared with urban persons, and low as compared with high socio-economic status persons, evidenced more role impairments, less favorable perceptions, and a more pessimistic outlook on life. There was a strong tendency for the rural men to report role impairments at an earlier age than did the urban men. In the total sample, role impairments increased markedly with age, but perceptions and mental outlook changed slightly. Men did not differ significantly from women in role impairments, but significantly more of the men than of the women evidenced a pessimistic outlook on life.

(4) Health Services, Needs, and Costs. Slightly more than half the respondents reported they had consulted a physician during the five years preceeding the survey, slightly less than one-third had made use of a hospital, and about one-fifth reported a nurse or a friend had come to their home to help them. One-fifth of the respondents said they needed health care in addition to what they were presently receiving. About one-third of the total sample reported they were covered by health insurance, on which the average annual premium was $75. Other medical costs averaged $43 per person for a year.

APPENDIX

Field Procedures

Two related problems were involved in designing and carrying out field procedures in the study. One was to obtain acceptance in the community, and the other was to establish and maintain a high level of rapport between the interviewer and the person interviewed.

Community Acceptance. Community acceptance of a study depends to a large degree upon the prestige and status of the sponsors. The outside sponsor was the University of Kentucky. In the rural area, the county agricultural extension agent played a major role in acceptance of the study. His local sponsorship and active participation undoubtedly allayed many misgivings. The local rural newspaper generously carried a front-page press release on the study, along with a photograph of the field staff. In the city of Lexington, no local sponsorship was given to the study other than by the University of Kentucky. The city newspapers carried small news items which briefly described the study.

Rural interviewers reported little resistance to the study. The general impression was that the rural respondents welcomed a visitor. In contrast, interviewers in the urban area reported more resistance. Many urban respondents thought the interviewer was a salesman or that he was attempting to obtain financial information for commercial

purposes. A few urban respondents telephoned the University to verify the credentials of the interviewers.

Substantially more of the urban than of the rural respondents were not at home and could not be located, were physically or mentally unable to respond, or were unwilling to be interviewed. These conditions required drawing additional urban households on a random basis, and this, perhaps, slightly biased the urban sample to include a smaller proportion of active older persons. The following numbers indicate the greater interviewing difficulties encountered in the urban area:

	Rural	Urban
The respondent:		
Was not at home and could not be located	31	212
Was physically or mentally unable to respond	21	43
Refused to be interviewed	10	89

Establishing and Maintaining Rapport. The successful completion of an interview required that the interviewer establish and maintain a high level of rapport with the respondent. Many factors were involved, such as the nature of the interview schedule, the selection and training of interviewers, and the place, time, and conditions under which the interview took place. It was recognized that information was sought on the personal and private problems of the respondents and that some persons might refuse to answer certain questions. The 16-page schedule of questions which guided the interview was designed and pretested to reduce nonresponse to a minimum. Reporting annual income was considered a sensitive area. A flash

card was used and the respondent was asked in which of the listed groupings his annual income fell. Three percent of the rural respondents and 8 percent of the urban respondents failed to answer the question on income. Similar small percentages of the respondents failed to reply to other questions of a personal nature.

Rural respondents were interviewed by rural interviewers and urban respondents by urban interviewers. Rural interviewers were recruited by the county agricultural extension agent and included farmers and wives of farmers, retired school teachers, and locally employed rural persons. Urban interviewers were obtained mainly through the University of Kentucky Employment Service and included university students and housewives living in the city of Lexington.

Training sessions for the interviewers included group discussions on the objectives of the study, on the content and wording of the schedule, and on techniques of establishing and maintaining rapport. Each interviewer role-played an interview with another interviewer. After one day's experience in interviewing in the field, the interviewers met with the project director and office staff for clarification of problems and difficulties. Each completed schedule was reviewed by a member of the office staff.

An interviewer called at each household in the sample and asked if a person aged 60 or over lived there. If the older person was not at home on the first call, information was sought from relatives or neighbors, in person or by telephone, as to where he might be found, and the interviewer attempted to reach him. Almost all interviews were made in the homes of respondents. A few of the urban

men were interviewed at their place of work. When interviews were made with husband and wife, an effort was made to interview them separately. If the couple was interviewed together, the schedule of one member was completed before interviewing the spouse. The average time per interview was about 50 minutes. In some cases, with more talkative respondents, an interview lasted as long as two hours. A considerable number of respondents insisted upon serving refreshments to the interviewers.

The interviewers were markedly successful in establishing and maintaining a high level of rapport. Once an interview was begun, in no instance did a respondent end it before it was completed. A number of respondents (64 in number) were physically or mentally unable to communicate adequately, in which cases the interviewer ended the interview, and the schedule was not used.

An indication of the level of rapport achieved in the interviews is revealed by the interviewer ratings. Each respondent was rated on his cooperativeness. Two-thirds of the respondents were rated as very cooperative, one-quarter as fairly cooperative, and only 8 percent as uncooperative, with little difference between rural and urban respondents (Table 11).

Table 11. Cooperation of Persons Aged 60 and Older in Being Interviewed, Casey County and Lexington, Kentucky, 1959

Interviewer's Rating of Cooperation	Rural		Urban		Total	
	No.	Pct.	No.	Pct.	No.	Pct.
Very cooperative	418	67	416	68	834	68
Fairly cooperative	156	25	139	23	295	24
Somewhat uncooperative	42	7	42	7	84	7
Very uncooperative	8	1	9	2	17	1
No response	3	*	3	*	6	*
Total	627	100	609	100	1,236	100

*Less than 0.5 percent.