Health in the Years Before Retirement

by DENA K. MOTLEY*

The worker who approaches retirement in good health, and with the means of maintaining it, possesses a major source of well-being for the years ahead. In a cohort of people not yet 65, three-fourths reported that their health was at least on a par with that of others their age and three-fifths were free of disabling health conditions Nine out of 10 had made some contact with the medical world in the survey year, but some—a fourth in all—were postponing medical care for conditions they felt needed attention. At intervals during the 10 years following the baseline year of 1968, the sample members of the Retirement History Study will bring their reports on these topics up to date. Changes will be observed and weighed against the surrounding circumstances—chiefly, work status, living arrangements and expenses, and income. Analysis of the interaction of these factors during a decade of change from a work-dominated life to a leisure-dominated life is expected to add dimension to social planning for American people in their retirement years.

WHATEVER THE DIFFERENCES of opinion about how to assure a successful retirement, there is no disagreement about the importance of good health. Retirement manuals are replete with advice on what the period immediately preceding retirement offers by way of opportunities to prepare for the years ahead. For most families, the expensive years in which children are completing their education are past, homeowners can pay off their mortgages, and savings can be accumulated at a faster pace. An unanticipated retirement, ushered in by a disabling illness, has none of the advantages of careful preparation and is, rather, more apt to be accompanied by a host of medical bills than by a comfortable balance in the bank. As a longitudinal survey, the Retirement History Study (RHS) will clarify what circumstances in the years immediately preceding retirement have particular bearing on the quality of life in retirement.

ASSESSING HEALTH IN LATE WORKLIFE

Interest in the relation between health and retirement is of long standing. For a national conference on retirement that was called in 1952, Thomas Parran prepared a review of the subject that anticipated the direction and findings of much of the subsequent research.[1] In studies both here and abroad in other industrially developed countries, social scientists have addressed the popular belief that retirement causes health to decline. Regardless of the measures used, these studies have not found any support of this notion, and some have even found that retirement may prove more beneficial than harmful.[2] In a complete swing from the idea that retirement is injurious to health, workers under certain favorable conditions have reported that they are retiring in order "to safeguard their health and physical energies" so that they could enjoy their leisure years.[3]

Although it has not been substantiated that retirement causes poor health, there is a considerable amount of evidence that poor health has been a major cause for retirement and especially for retirement before the conventional age of 65.[4] How matters stand in this period of transition between worklife and retirement may well indicate how they are going to be in a period that is becoming clear-cut and long-lasting for growing numbers of people.

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[1] Thomas Parran, "Retirement of Older Workers," in Geneva Mathiesen (ed.), *Criteria for Retirement*, G. P. Putnam's Sons, 1953, pages 59–118.

[2] Wayne E Thompson and Gordon F. Streib, "Situational Determinants: Health and Economic Deprivation in Retirement," *Journal of Social Issues*, 1958, No. 2, pages 18–34; John Martin and Ann Doran, "Evidence Concerning the Relationship Between Health and Retirement," *The Sociological Review*, November 1966, part 2, pages 329–343; Ethel Shanas, "Health and Adjustment in Retirement," *The Gerontologist*, Spring 1970, part 2, pages 19–21; Carol Ryser and Alan Sheldon, "Retirement and Health," *Journal of the American Geriatrics Society*, February 1969, pages 180–190.

[3] Harold L. Orbach, "Social and Institutional Aspects of Industrial Workers' Retirement Patterns," in *Trends in Early Retirement* (Occasional Papers in Gerontology, No. 4, Institute of Gerontology, University of Michigan, 1969, pages 1–26

[4] Richard Barfield and James Morgan, *Early Retirement: The Decision and the Experience*, University of Michigan, 1969, and A. William Pollman, "Early Retirement: A Comparison of Poor Health to Other Retirement Factors," *Journal of Gerontology*, January 1971, pages 41–45.

The Data Collection

The data for this report come from the personal interviews of 11,105 respondents that were conducted by the Bureau of Census for the Social Security Administration in the spring of 1969.[5] The respondents were aged 58–63 at the time of this initial interview. They were revisited in the spring of 1971 and the second revisit is scheduled for the spring of 1973. Respondents will be reinterviewed at intervals for a period of at least 10 years, during which it is expected that the majority of them will go through the process of retiring and settling into the period of years beyond worklife. The interview schedule comprises, in addition to the health section, five other sections: the respondent's labor-force history; retirement plans; household, family, and social activities; income, assets, and debts; and the labor-force history of wives of the primary respondents.[6]

Years used.—Most of the questions on health, including those on receipt of care and amount of money spent, specified the calendar year 1968 to be covered in the replies. Data on the questions that deal with current situations are tabulated as of 1969—such questions, for example, as "Is your health better, worse, or the same . . .?" and "Are you able to go outside . . . without help?"

Scope and Limitations

The sample.—The sample design is described in the Technical Note at the end of the article. The men in the sample are representative of the United States population at large. Marital status, however, determined the inclusion of women; only those with "no spouse present" were selected into the sample. The exclusion of married women aged 58–63 as primary respondents from a study of the retirement process was based on the disclosure in pretests of the inapplicability of the questions considered most germane to the study. Although these women might find questions on health easy to answer, questions pertaining directly to retirement—current and past employment, for example, eligibility for a pension, or plans to stop working—often appeared irrelevant if not unanswerable. Marital status, then—observable as a factor in health and medical care because of its bearing on how people live and whether they are alone or not—becomes one of the bases of comparison in presenting the health data: the women (nonmarried) compared with the men, married men compared with nonmarried men, and the three groups considered as a whole.

Age is the other basis of selection. Longitudinal data, in time, will provide the information on the retirement process that is being sought in this study, but some characteristics of the sample members are delineated more clearly for the present by comparing the 2-year age cohorts into which the sample members have been sorted. Large differences do not emerge from the 6-year range of this sample, but the directions that are indicated in several instances serve as checkpoints for future, longitudinal observation. In other instances, differences in health within the 6-year span are quite discernible—especially for people at this age, on the threshold of retirement, if not for their offspring who are beginning their first job.

The health data.—With the aim of obtaining as complete an overview as possible of each respondent's health care situation, a series of parallel questions was asked about each of the several types of care—physician care, hospitalization, dental care, prescription drugs, and miscellaneous services and supplies. For each of these categories, the respondent reported on the amount of bills, the amount he paid, and the amount paid by health insurance. He was also asked if he had received any of these types of care at someone else's expense or through another person's insurance (as in the case of an accident claim), or under such auspices as an employer, welfare agency, or the Veterans Administration. The receipt of such care and the source of payment were recorded, but assessment of the monetary value of such care is not attempted, since it is outside the scope of this study.

The respondent was asked if he had also received any incidental free care such as a glaucoma test or a chest X-ray that he might not have included in answers on expenses for specific kinds of care. The respondent was also asked about his

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[5] See the Technical Note, footnote 2, page 35, for details about the number of persons in the sample.

[6] See Lola M. Irelan, "Retirement History Study: Introduction," *Social Security Bulletin*, November 1972

expenditures for nonprescription drugs. He reported on whether he expected to have health insurance when he retired, whether he now had insurance, whom it covered, the kinds of care it covered, how much it cost him, and, where the cost was not completely borne by the respondent, who the contributors were.

Although health care at any age contributes to immediate well-being, it is especially important in the later working years, when health looms as a critical issue for many people for the first time in their lives. For this reason, the reverse of the utilization coin—postponement—is explored: its incidence and the reasons for its occurrence. Respondents also specified the conditions for which they were delaying treatment.

The range of information called for in the RHS schedule provides material for extensive and intensive exploration. Certainly, for example, the potential of the data on health status for contributing to the body of knowledge about health and retirement can be realized only as these data come to be related to concurrent work status —that is, at the time of the initial interview and subsequent interviews throughout the decade of the survey. The downward pressure on retirement age suggests the possibility of distinguishing between "early" retirement and "premature" retirement. With the age boundaries derived from social security provisions, retirements between age 62 and age 65 would be "early" and retirements before age 62, when one is not yet eligible even for reduced benefits, would be premature."

Insight into this phenomenon of premature retirement awaits analyses specifically of the considerable group of people in the sample who were in retirement at the outset of this study—the majority of them because of their health. Again, how people in these preretirement years are meeting their medical bills will take on added meaning when they are classified by income.[7] But the purpose of the report at hand is to present a baseline description of the health and medical care of indivdiuals whose activities are likely to undergo considerable change within the decade of this survey.

[7] See H. Ashley Weeks, *Family Spending Patterns and Health Care*, Harvard University Press, 1961, and Murray A Tucker, "Effect of Heavy Medical Expenditures on Low Income Families," *Public Health Reports*, May 1970, pages 419–425.

MEASURES OF HEALTH

Measures of health for research purposes have ranged from such objective data as mortality rates to completely subjective, on-the-spot replies from a respondent as to whether he feels his health is "good," "not so good," or "poor." Other measures are physician evaluations, number of consultations with a doctor, and days of bed disability. Long used with apology, self-reporting of health data—self-assessment, in particular—has come to find general acceptance in survey research, not only because of its availability but also because of its demonstrated utility. In early reports of the Cornell University study of occupational retirement, for instance, the investigators were at pains to distinguish between "subjective" health (self-assessed) and "objective" health (evaluated by physicians), the latter being used to confirm the former.[8] In the fullest and most recent report of this pioneering study, however, the authors not only employ the self-evaluation data without "objective" corroboration but present "the retiree's own evaluation of his health as a prime datum."[9]

One of the measures of individual health status in this study is the respondent's assessment of how his health compares with that of others of the same age—whether it is better, worse, or the same.[10] Respondents have also reported on their dental health and on disability—whether they have any condition that limits how well they get around or the kind and amount of work they can do, and for how long they have had the condition.

Self-Assessment and Comparison

A neutral opinion of their health was expressed by 45 percent of the people in the RHS sample

[8] Wayne E. Thompson and Gordon F. Streib, *op. cit.*, page 21.

[9] Gordon F. Streib and Clement J. Schneider, *Retirement in American Society*, Cornell University Press, 1972, page 63.

[10] Among other discussions of the subject, see M. Powell Lawton, Morton Ward, and Silvia Yaffe, "Indices of Health in an Aging Population," *Journal of Gerontology*, July 1967, pages 334–342, and Thomas Tissue, who discusses "perceived health" as distinct from "medical health," in "Another Look at Self-Rated Health Among the Elderly," *Journal of Gerontology*, January 1972, pages 91–94.

TABLE 1.—Self-reported health status: Percentage distribution of persons aged 58–63, by health status, marital status, sex, and age, 1969

Health status	Total	Men, spouse present				Men, no spouse present				Women, no spouse present			
		Total	58–59	60–61	62–63	Total	58–59	60–61	62–63	Total	58–59	60–61	62–63
Number (in thousands)													
Total	6,800	4,117	1,506	1,356	1,255	729	246	254	229	1,954	625	628	701
Reporting on health status	6,791	4,114	1,504	1,356	1,254	727	245	253	228	1,951	625	626	699
Percent reporting on health status	100	100	100	100	100	100	100	100	100	100	100	100	100
Health better than that of others same age	34	35	34	35	36	28	25	30	30	35	35	35	34
Health same as that of others same age	41	42	44	42	41	41	43	40	38	39	41	38	39
Health worse than that of others same age	20	19	18	21	19	27	29	25	28	20	20	21	20
Don't know	4	3	3	2	4	4	3	5	4	5	4	5	6

when they were asked "Is your health better, worse, or the same as that of other people your age?" About 41 percent of the respondents said their health was the same and 4 percent said they did not know; 34 percent said their health was better, and 20 percent said it was worse (table 1). Responses of nonmarried men were evenly divided between "better" and "worse"—28 percent and 27 percent, respectively. For the women and the married men alike, the replies were not so evenly divided—the weight was on the side of sanguinity, with 35 percent saying their health was better and the remaining 20 percent saying it was worse.

The neutral reports did not vary with age or marital status. Within the 6-year age range of this sample, there was little if any difference from one age group to another in how the several marital-status groups evaluated their health. What married men as a group, for example, thought of their health at age 58 or 59 was the same at 60 or 61 and again at 62 or 63. A characteristic that was the same at all age levels, however, distinguished nonmarried men from women and from married men: regardless of age, nonmarried men did not think their health was as good as the other two groups thought theirs was.

Disability

In this study of the retirement process and the factors surrounding it, the thrust of the questions about disabling conditions is their effect on the respondent's ability to work. Respondents were first asked "Do you have any health condition, physical handicap, or disability that limits how well you get around?" and then, "Does your health limit the kind or amount of work or housework you can do?" Only the latter question determines the presence of a work limitation.

Whether or not the respondent said that he had a handicap that prevented his moving about with ease, if he had no health condition that affected his capacity or capability for work, he was screened from further questioning about disabilities. Only those who reported that their work was limited were asked about the extent of their physical disabilities, how their work was affected, and when their limitations began.[11]

These three areas of investigation—incidence of disability and any accompanying mobility limitation, the effect on work, and the duration of the disability—provide the following overview:

Kind of limitation	*Percent*
Disabled (with limits on the kind or amount of work or housework)	100
Housebound or bedridden	11
Gets about only with help	14
Boards a bus without help	75
Unable to work	38
Unable to pursue same kind of work	30
Able to do same kind of work	32
Has been limited for 5 or more years	53
Has been limited for less than 5 years	47

Work-limiting health conditions.—Sixty-one percent of the respondents were free of any physical condition that hindered their ability to move about or that affected the kind or amount of work they could do (table 2). Four percent had a physical handicap that affected their ability

[11] One very small group, chiefly women (38,000 out of 46,000), who reported a condition that limited the kind or amount of work or housework they could do, had also reported that they had never worked and were consequently not asked about job adjustments Did their "never worked" status include housework as well? It is not clear whether the ambivalence was theirs or ours

TABLE 2.—Extent of limitation in mobility: Percentage distribution of persons aged 58–63 with work limitations, by extent of mobility limitation, age, sex, and marital status, 1969

Extent of mobility limitation	Total	Men, spouse present				Men, no spouse present				Women, no spouse present			
		Total	58–59	60–61	62–63	Total	58–59	60–61	62–63	Total	58–59	60–61	62–63
Number (in thousands)													
Total	6,800	4,117	1,506	1,356	1,255	729	246	254	229	1,954	625	628	701
Reporting on disability	6,771	4,105	1,505	1,349	1,252	724	244	251	228	1,942	624	627	691
Percent reporting on disability	100	100	100	100	100	100	100	100	100	100	100	100	100
No limitation	61	63	67	62	58	53	59	54	47	61	65	60	58
Mobility limitation only	4	4	4	4	4	2	2	2	3	3	3	4	3
Work limitation	35	33	29	34	38	44	40	44	50	36	32	36	39
Able to board a bus unassisted	27	26	23	27	30	33	29	33	39	25	22	26	28
Needs help to board a bus	2	1	1	1	1	2	2	2	2	2	2	3	3
Needs help to go outside house	3	3	4	3	3	4	3	5	5	3	3	3	3
Is bedridden or housebound	4	3	2	3	3	5	6	4	4	5	5	4	5

to move about, but they considered themselves free of any limitation with regard to work or housework. The remaining 35 percent, with little difference apparent for men and women, reported that they had a work limitation.

Incidence of disability increased in the 6-year span from age 58 to age 63 by about 10 percentage points in each marital-status group. For married men and single women, the range was from approximately 30 percent at age 58–59 to nearly 40 percent at age 62–63; for single men, from 40 percent at age 58–59 to 50 percent at 62–63. These figures are for persons with work limitations; they do not include the small group—4 percent—whose health condition affected their ability to get about but did not affect their work. It should be noted that single men, who rated their health lower than the others did, were also the group with the highest incidence of disability.

Men and women differed little in prevalence of disability, and they also differed little from each other in the length of time they had been disabled. Similar findings are reported by the 1966 Survey of the Disabled, made by the Social Security Administration. In that survey, disability rates for men and women were similar in four age groups ranging from age 18 to age 64. In addition, there was also little difference between men and women in the age distribution of those who were disabled.[12]

Severity of mobility limitations and age.—A generally accepted dividing line between ability and disability—between being limited and not being limited—is the need for assistance, because of its implication of loss of independence. Accordingly, a person who needs help to dress or to eat is limited in "personal care activities."[13] In the area of mobility, the National Center for Health Statistics classifies as limited those persons who "need the help of some special aid, such as a cane or wheelchair [or] the help of another person in getting around."[14] A health index described at recent meetings of the American Statistical Association included a mobility scale in which the first level of limitation in function was "Traveled with difficulty; required assistance to use public transportation."[15] Again, in the Social Security Survey of the Disabled, the first category of mobility limitation is "needs help for transportation." As Lawrence Haber points out, "Special arrangements or facilities for getting to work may be more of a problem than doing the work. . . . People with the residual capacities to do a job may be prevented by inability to get to work."[16]

The Retirement History Study incorporated in its schedule the same series of questions about

[12] Lawrence D. Haber, *The Effect of Age and Disability on Access to Public Income-Maintenance Programs* (Report No. 3, Social Security Survey of the Disabled, 1966), Social Security Administration, Office of Research and Statistics, July 1968, page 4, table 2.

[13] Lawrence D. Haber, *The Epidemiology of Disability: II. The Measurement of Functional Capacity Limitations* (Report No. 10, Social Security Survey of the Disabled, 1966), Social Security Administration, Office of Research and Statistics, July 1970, table 1.

[14] "Chronic Conditions and Limitations of Activity and Mobility," National Center for Health Statistics, *Vital and Health Statistics* (Series 10, No. 61), page 2.

[15] J. W. Bush, M. M. Chen, and D. L. Patrick, *Social Indicators for Health Based on Function Status and Prognosis*, paper presented before the Social Statistics Section of the American Statistical Association, Montreal, August 14–17, 1972, table 1, page 14.

[16] Lawrence D. Haber, Report No. 10, Social Security Survey of the Disabled, page 5.

work limitations and mobility limitations that was used in the Social Security Survey of the Disabled. Here, again, the first level of limitation in mobility is the need for help in boarding a bus ("Are you able to use buses, trains, or other public transportation without help from others?").

Whatever the nature of their physical handicap or health condition, the 35 percent who reported that their health limited the kind or amount of work they could do fall into two main groups: a relatively large group whose mobility was not seriously affected, that is, 27 out of 35 were able to board buses without assistance; and a smaller group, comprising those who were bedridden or housebound, those who needed assistance to go outside their homes, and those who needed help to board a bus (table 2).

The larger group increases with age; the smaller group does not. Health conditions that limited work without being accompanied by serious mobility problems appeared more frequently among older respondents than among younger respondents, but the reporting of serious mobility problems remained quite stable between ages 58 and 63.

At age 58–59, for example, twenty-three percent of all married men had a work limitation but could board a bus; at age 62 or 63, the percentage was 30. On the other hand, the proportion of married men who reported work limitations accompanied by serious mobility limitations (ranging from needing help to board a bus to being bedridden) was 7 percent for all ages.

The reporting of mobility problems unaccompanied by work limitations also did not vary with age: The proportions were 4 percent and 3 percent for married men and single women, respectively, and 2–3 percent for single men (table 2). Since the persons in this small group did not consider themselves work-limited, the extent of their mobility limitations is not known. As age advances, then, in this group approaching age 65, increasing proportions considered themselves as limited in their work, but there is no corresponding increase with age in the proportions of those for whom simply getting about was a serious problem.

Adjustments to limitations in work.—For the worker who incurs a disabling condition, the first concern is whether he can continue to work at all. Attention then turns to his adjustment on the job and the flexibility of the job itself. Of the people with a work-limiting health condition, 37 percent were unable to work at all and 63 percent were able to work.

Given the work-limiting health condition, married men, especially the youngest in this sample of 58–63-year-olds, were markedly less likely than the nonmarried respondents to be prevented from working altogether (table 3). More than twice as many married respondents found themselves able to work as not. The disabled single respondents—both men and women—were much more evenly divided between those able to work and those unable to do so.

It should not be assumed, however, that the greater impact of work limitations on the nonmarried respondents than on the married necessarily reflected a lesser degree of physical ailment among the latter. In Denmark, Great Britain, and the United States, note has been taken of the greater tendency of married men than of non-

TABLE 3.—Extent of work limitation: Percentage distribution of persons aged 58–63 with work limitation, by extent of limitation, age, marital status, and sex, 1969

Extent of limitation	Total	Men, spouse present				Men, no spouse present				Women, no spouse present			
		Total	58–59	60–61	62–63	Total	58–59	60–61	62–63	Total	58–59	60–61	62–63
Number with a work limitation (in thousands)	2,379	1,368	441	455	471	321	97	110	114	690	197	225	267
Total percent	100	100	100	100	100	100	100	100	100	100	100	100	100
Unable to work [1]	37	32	26	35	34	46	47	43	46	44	42	43	46
Able to work	63	68	73	64	66	54	52	57	52	56	58	57	54
Not able to do same kind of work [2]	29	32	33	31	32	24	16	28	26	24	27	22	22
Had to change jobs	13	16	16	15	16	11	7	11	13	10	13	9	9
Did not have to change jobs	15	17	17	16	17	13	8	17	13	14	15	12	14
Able to do same kind of work [3]	34	36	40	34	33	30	36	29	26	32	31	36	32

[1] Corresponds approximately to the category "Severely disabled" in the 1966 Survey of the Disabled
[2] Corresponds approximately to the category "Occupationally disabled" in the 1966 Survey of the Disabled
[3] Corresponds approximately to the category "Secondary work limitation" in the 1966 Survey of the Disabled.

TABLE 4.—Onset of work limitation: Percentage distribution of persons aged 58–63 with work limitations, by time of onset of limitation, age, sex, and marital status, 1969

Onset of work limitation	Total	Men, spouse present				Men, no spouse present				Women, no spouse present			
		Total	58–59	60–61	62–63	Total	58–59	60–61	62–63	Total	58–59	60–61	62–63
Number (in thousands)													
Total with work limitation	2,379	1,368	441	455	471	321	97	110	114	690	197	225	267
Reporting on onset	2,362	1,358	438	454	466	319	97	110	113	685	197	224	264
Total percent	100	100	100	100	100	100	100	100	100	100	100	100	100
Within the past year	11	11	10	11	12	12	12	12	10	11	7	12	13
1 to less than 5 years ago	35	37	34	40	36	33	29	31	37	33	32	31	36
5 or more years ago	53	52	56	49	52	54	57	54	52	54	57	56	50
Disabled from birth	1	(1)	(1)	(1)	(1)	1	1	2	(1)	2	4	1	1

[1] 0.5 percent or less

married men to continue working in the face of a common contraindication—in this instance, the attainment of pensionable age.[17]

Beyond the degree of limitation that marked the ability to work, there was very little to differentiate sample members by age, sex, or marital status in the kinds of adjustments they made to a changed work situation (table 3). Just over half of those able to work were not prevented by their disability from continuing the same kind of work. Respondents whose work limitations called for a change in the kind of work they did were, in turn, about evenly divided between those who had to change jobs altogether and those who were able to keep the job they had when they became disabled.

Onset of Disability

Whether a given health condition will be limiting and how limiting it will be depend not only on the nature of the condition itself but also on the person's age at the time the condition develops. The time of life in which a person suffers the onset of a health condition that affects his work also has a bearing on his chances for recovery or, failing recovery, his opportunities and capacities for adjustment.

Those who reported in the Retirement History Study that they had a work-limiting condition of long standing may be considered especially unfortunate in having been handicapped so long, even though they have also had more time in which to make adjustments than those whose handicaps began only within the past few years. How many of their age peers may have recovered from similar setbacks is not known, and whether a different kind or quantity of medical care could have effected a recovery or enabled a successful rehabilitation cannot be ascertained.

The older the person, the less likely he is to be able to recoup a physical setback. The possibility of losing a job increases with age in any case, and no less for a disabled person. Opportunities for adjusting to disabilities by way of changes in the demands of the same job also diminish with age. Apart from the job situation, the newly disabled person himself has less capacity for adjusting the older he is and the more ready he becomes to consider a given condition as work-limiting. For workers in their late 50's or early 60's, then, the onset of a work-limiting condition has serious implications. For many it marks the end of worklife.[18]

The span of time represented by "5 or more years ago," brings the RHS sample members from their early years up to the age range of 53–58 (table 4). By the time they had reached this age, slightly more than half of those who were disabled in 1969 (54 percent) had already experienced the onset of the health condition that limited their work. The remaining onsets of disability were compressed into the relatively short period of the next 5 years, up to the time of the interview in 1969. Of the 46 percent with onsets in the 5 years before the interview, 35

[17] Poul Milhoj, "Work and Retirement," chapter 10 in Ethel Shanas and Associates, *Old People in Three Industrial Societies*, Atherton Press, 1968, pages 301–302.

[18] See Lawrence D. Haber, "Age and Capacity Devaluation," *Journal of Health and Social Behavior*, September 1970, pages 167–182, on the relation between extent of functional limitations and assessment of capacity for work. See also Ralph Treitel, *Onset of Disability* (Report No. 18, Social Security Survey of the Disabled, 1966), Social Security Administration, Office of Research and Statistics, June 1972.

percent had experienced onset in the 4-year period of 1–5 years preceding the interview—a yearly average of just under 9 percent. Eleven percent had become disabled in the year preceding the interview.

Retirement and the Onset of Disability

Apparent improvement in health after their retirement was observed among, especially, the unskilled workers in the Cornell study of occupational retirement. In seeking explanations for this phenomenon, the investigators conjecture that the about-to-retire worker, pushed to capacity to meet the demands of a work day, finds that the physical demands of a day's activities after retirement are well within his capacity to meet; consequently, he assesses his health more favorably after retirement than before.[19] By way of explaining a similar finding, other investigators offered the opinion that retirement provides relief from stress; that improvement in health "may be a consequence of a decrease in the tension and anxiety related to working and apprehension about retirement."[20] Thomas Parran made a similar point, although it is made with respect to preservation of health rather than improvement. "If the question of retirement," he says, "is to be considered on an individual basis, [one of the factors to be considered is] the probable extra cost to health and longevity of continuing to face job stresses."[21]

From the RHS findings it may be possible to make a parallel observation with respect to a person's coming to consider himself disabled: Since effect on ability to work provides the framework within which a health condition is defined as a disability, it seems likely that people would be less prone to report that a given condition was disabling after they had stopped working than before. The Retirement History Study, being longitudinal, holds forth the prospect of observations of this aspect of disability and its relation to retirement.

According to some observers, immediate treatment enhances the possibility of recovery from an otherwise disabling condition and is more effective than efforts of rehabilitation after a person begins to consider himself as disabled. Immediate and adequate treatment becomes more important with increasing age even though the chronic illnesses that typically occur with advancing age are less likely to be cured than merely alleviated. For this reason, the final section of this report takes into account not only utilization of health services but also the extent of postponement in the RHS sample, in the years before most of the sample members have retired.

Comparisons of Disability Data

The concept of disability as a limitation in function rather than a clinical condition is common to the Retirement History Study, the 1966 Survey of the Disabled, and the Health Interview Survey of the National Center for Health Statistics. The population covered by the three surveys is the civilian, noninstitutional population of the United States living at the time of the interview. Data for the surveys are self-reported and have been collected in similar fashion—personal household interviews—by the same agency, the Bureau of the Census, under contract to the respective investigating agencies.

Differences in objectives of each of the surveys have called forth some variation in screening methods and details of definition—but not to the extent of precluding interest in comparisons of findings (table 5). The age range of the data from the 1966 Survey of the Disabled encompasses the age range of the Retirement History Study by not too large a margin for purposes of comparison, and the two studies use the same series of questions on disability.

Special tabulations of data from the Health Interview Survey, which match the age categories of the Retirement History Study, make these comparisons particularly interesting. Because of the exclusion of married women from the Retirement History Study, primary attention should be directed to the estimates for men.

The 1966 disability survey excludes those whose disabilities are of only 6 months' duration or less. On the basis of the estimate that 4 percent in the Retirement History Study had disabilities of up to a year's duration (table 4), this exclusion could

[19] Gordon F. Streib and Clement J. Schneider, *op. cit.*, pages 77–78.
[20] Carol Ryser and Alan Sheldon, *op. cit.*, page 189.
[21] Thomas Parran, *op. cit.*, page 116.

TABLE 5.—Comparison of extent of disability in noninstitutional population, United States, three surveys

Sex, age,[1] and survey	Percentage distribution				
	Total	Not limited	Limited but not in major activity	Limited in kind or amount of work or housework	Unable to work or do housework
Men					
Aged 55–64, 1966 Survey of the Disabled [2]	100	64	([3])	22	14
Aged 58–63					
Retirement History Study	100	61	[4] 4	23	12
Health Interview Survey [5]	100	73	[6] 3	12	12
Aged 58–59					
Retirement History Study	100	65	[4] 4	22	9
Health Interview Survey [5]	100	76	[6] 3	10	11
Aged 60–61					
Retirement History Study	100	61	[4] 3	22	13
Health Interview Survey [5]	100	74	[4] 3	12	11
Aged 62–63					
Retirement History Study	100	56	[4] 4	25	14
Health Interview Survey [5]	100	70	[6] 3	13	14
Women					
Aged 55–64, 1966 Survey of the Disabled [2]	100	64	([3])	18	18
Aged 58–63					
Retirement History Study [7]	100	61	[4] 4	20	16
Health Interview Survey [8]	100	78	[6] 4	15	3
Aged 58–59					
Retirement History Study [7]	100	65	[4] 3	18	13
Health Interview Survey [5]	100	80	[6] 4	13	3
Aged 60–61					
Retirement History Study [7]	100	60	[4] 4	21	15
Health Interview Survey [5]	100	79	[6] 4	15	([8])
Aged 62–63					
Retirement History Study [7]	100	58	[4] 3	21	18
Health Interview Survey [5]	100	76	[6] 4	17	3

[1] Data for 1969 for both Retirement History Study and Health Interview Survey

[2] Lawrence D Haber, *The Effect of Age and Disability on Access to Public Income-Maintenance Programs* (Report No 3 from the Social Security Survey of the Disabled, 1966), Social Security Administration, 1968, table I Excludes persons disabled for 6 months or less

[3] Classified as "not limited"

[4] With a physical condition that limits mobility but has no effect on amount or kind of work

[5] Data from National Center for Health Statistics, special tabulations from the Health Interview Survey.

[6] Limited in nonwork activities such as church, clubs, hobbies, civic projects, sports, and games

[7] Excludes women with spouse present

[8] Figure does not meet National Center for Health Statistics standards of reliability or precision.

take a percentage point or two from the 1966 estimate of persons with no disabilities. The differences between the 1966 survey and the Health Interview Survey have been reported in detail.[22] Differences between the 1966 survey and the Retirement History Study on the one hand and the Health Interview Survey on the other are reflected especially in the estimates for women on the inability to work, in the estimates for men on the proportion of persons with work limitations but able to work, and in the estimates for both men and women on the proportions with no limitations.

Persons "limited, but not in major activity" are classified as without limitation by the 1966 survey, and these two categories in the RHS and the HIS data need to be totaled to correspond to the category "not limited" in the 1966 study.

The agreement between the Retirement History Study and the Health Interview Survey in the proportion of persons limited but not in major activity is interesting in view of the apparent difference in definition; it suggests that a mobility limitation unaccompanied by a limitation in work (RHS) could be identifying the same people who manage to work without limitations but have enough difficulty in getting about without help to keep them from participating in church and volunteer activities (HIS).

Dental Health

A person's dental condition reflects the effects of aging as does any other aspect of his physical well-being. Chronic diseases take their toll at least as conspicuously in this area of physical condition as in other areas of health, occurring more frequently than in youth and with more

[22] Lawrence D. Haber, "Identifying the Disabled: Concepts and Methods in the Measurement of Disability," *Social Security Bulletin*, December 1967.

TABLE 6.—Dental condition: Percentage distribution of persons aged 58–63, by dental condition, age, sex, and marital status, 1969

Dental condition	Total	Men, spouse present				Men, no spouse present				Women, no spouse present			
		Total	58–59	60–61	62–63	Total	58–59	60–61	62–63	Total	58–59	60–61	62–63
Number (in thousands)													
Total	6,800	4,117	1,506	1,356	1,255	729	246	254	229	1,954	625	628	701
Reporting on dental condition	6,724	4,074	1,492	1,344	1,238	721	244	252	225	1,929	618	620	691
Total percent	100	100	100	100	100	100	100	100	100	100	100	100	100
No teeth missing	5	4	5	4	4	6	6	9	5	5	6	4	5
Has lost some teeth	61	61	62	61	60	60	65	57	57	61	64	61	59
Partial dentures	33	31	30	31	32	29	33	28	24	37	36	36	40
No dentures	28	30	32	30	28	31	32	29	33	24	28	24	19
Has lost all teeth	34	34	32	35	36	33	29	33	38	34	30	35	36
Complete dentures	31	32	30	32	33	27	25	28	30	32	28	32	34
No dentures	3	2	2	3	3	6	4	5	8	2	2	3	2

telling effect in the wake of neglect or inadequate attention. Nevertheless, although dental health is often valued as a cosmetic asset, it is less apt to be weighed as an ingredient of general health. Indexes used in survey research to assess health status do not incorporate information about dental condition, nor is it found that most people regard the condition of their teeth as a matter of primary concern—not because they do not consider themselves subject to dental diseases, but because they do not consider such conditions injurious to their health.[23]

As Ronald Andersen states, "Dental services fall outside this medical regimen [of physician care and other medical services]. The dentist practices independently from the physician, and most of his patients are not ill in the traditional medical sense."[24] The term "dental status" or "dental condition" instead of "dental health" alongside "health status" might reflect more accurately the position that is ascribed to the one in relation to the other—as if each were a separate area of well-being, yet both similarly reflecting environmental advantages and disadvantages.

Regardless of their general health, not many people reach their late fifties with their permanent teeth intact. Only 5 percent in the RHS sample still had all their permanent teeth, 34 percent were edentulous, and 61 percent had lost some of their permanent teeth (table 6).

Data from the Retirement History Study and from the Health Interview Survey demonstrate the effect of age on dental condition. The following tabulation gives the percentage of persons with total loss of teeth, according to each of the surveys. Data from the two surveys are in close agreement. The exclusion of married women from the RHS data does not affect these comparisons, perhaps because married and nonmarried women do not differ widely from each other in many characteristics and because this particular characteristic—dental condition—does not vary to any considerable degree according to marital status. Among men in the Retirement History Study, for example, 34 percent of the married men were edentulous, ranging from 32 percent to 36 percent—from the youngest to the oldest; 33 percent of the single men were edentulous, ranging from 29 percent for the youngest group to 38 percent for the oldest.

Sex and age	Retirement History Study, 1969 [1]	Health Interview Survey, 1971 [2]
Total aged 58–63	34	32
58–59	32	30
60–61	35	32
62–63	37	36
Men aged 58–63	34	32
58–59	32	28
60–61	35	31
62–63	36	37
Women aged 58–63	34	33
58–59	30	31
60–61	35	32
62–63	36	36

[1] Excludes women with spouse present
[2] National Center for Health Statistics, special tabulations from the Health Interview Survey.

UTILIZATION OF HEALTH SERVICES

People differ widely in their use of health services—in the amount of use and in the kind

[23] John P. Kirscht, et al., "A National Study of Health Beliefs," *Journal of Health and Social Behavior*, Winter 1966, pages 248–254.

[24] Ronald Andersen, *A Behavioral Model of Families' Use of Health Services*, University of Chicago, Center for Health Administration Studies (Research Series 25), page 30.

of services they use. And the differences are not due, necessarily, to levels of health. Illness itself, acute or chronic, is only one of the many factors that enter into the seeking—or the postponement—of care. Characteristics as seemingly unrelated as the education a person has or where he lives may play a part, and their importance can vary from person to person and from one kind of care to another.

Days of hospital care and number of visits to a physician are often used as measures of health status, but as a form of health behavior, utilization of health services is subject to factors that may have little direct bearing on a person's level of health. It is recognized that hospital care in this country, for instance, has been sharply affected by the emphasis in the health industry on insurance protection for hospital expenses over protection for out-of-hospital expenses.

Pierre Laveau, addressing the International Social Security Association in 1968 on the problem of evaluating medical care needs in France, said, "The use of medical services depends on the social group to which the individual belongs, on the type of area in which he lives and above all on the nature and density of the health services available much more than it depends on personal earnings or method of protection."[25] In all the factors named, health per se was not even mentioned.

Two recently issued, careful studies illustrate the complexity of the phenomenon of utilization of health services. On the basis of a thorough review of the literature, Ronald Andersen selected 69 explanatory variables, which he grouped in three broad classes, or components: (1) predisposing, (2) enabling, and (3) need, for his study of family utilization.[26] The other study was conducted in Finland, where a national sickness insurance program was implemented in 1964.[27] For this study, Esko Kalimo utilized 65 variables classified as illness, demographic, attitude, social stratification, availability of medical services, and municipality of domicile. The designers of the before-and-after surveys that were conducted in Finland to evaluate the new program regarded utilization of medical services as behavior that was dependent on the social conditions set by society as well as on morbidity.[28]

Utilization of health services, then, is a measure of wider range than level of health, alone. "Failure to see a doctor for 12 months," as one observer put it, "is not necessarily proof of good health any more than a weekly visit demonstrates serious illness. Hypochondria and apathy, ignorance and knowledge, irresponsibility and concern are all aspects of consumer demand."[29] The concept of health care as an aspect of "consumer demand" is itself an example of one of a wide variety of viewpoints on the seeking of health care.

Overall Receipt of Care

The category of total health care services includes physician visits, both in person and by phone and in as well as out of the hospital; overnight hospital stays; dental care; prescription drugs; medical supplies and services (such as nursing care or chiropractic) and appliances such as eyeglasses and hearing aids; and incidental free care for chest X-ray examinations, polio inoculations, glaucoma tests, and the like.

Only 1 in 10 of the sample members reported that they received no medical care or services during 1968 (table 7), as the data below indicate.

Type of service received	*Percent*
1 or more types of service	89
Physician care	67
Prescription drugs	67
Hospital care	14
Dental care	40
Miscellaneous services and supplies	39
Incidental free care and services	18

[25] Pierre Laveau, *Recent Developments in Survey Research related to Social Security Needs and Achievements*, address to International Social Security Association, Conference on Social Security Research, Vienna, September 23–October 2, 1969.

[26] Ronald Andersen, *op. cit.*, page 4.

[27] Esko Kalimo, *Determinants of Medical Care Utilization: Correlational Multivariate Analyses of Illness Behavior and the Factors Affecting It Among the Adult Population of Finland Prior to the National Sickness Insurance Scheme*, Helsinki: Research Institute for Social Security, 1969.

[28] Tapani Purola, *Utilization of Medical Services in Finland: Survey to Evaluate the Sickness Insurance Program Introduced in 1964*, Address to the Conference on Social Security Research, International Social Security Association, Vienna, September 28–October 2, 1969.

[29] Herman Miles Somers and Anne Ramsay Somers, *Doctors, Patients, and Health Insurance*, The Brookings Institution, 1961, page 157.

TABLE 7.—Summary of receipt of medical care: Percent of persons age 58–63 receiving medical care and services, by age, sex, marital status, and type of service, 1968

Type of care	Total	Men, spouse present				Men, no spouse present				Women, no spouse present			
		Total	58–59	60–61	62–63	Total	58–59	60–61	62–63	Total	58–59	60–61	62–63
Number (in thousands):													
Total	6,800	4,117	1,506	1,356	1,255	729	246	254	229	1,954	625	628	701
Reporting on receipt of—													
Physician care	6,688	4,055	1,482	1,341	1,232	721	239	246	226	1,922	614	619	688
Hospital care	6,795	4,114	1,505	1,355	1,254	728	246	253	229	1,952	625	628	700
Dental care	6,779	4,103	1,499	1,352	1,252	727	245	253	228	1,950	625	627	698
Prescription drugs	6,794	4,113	1,501	1,354	1,254	729	246	254	229	1,953	624	628	701
Miscellaneous services and supplies [1]	6,776	11.04	1,500	1,354	1,250	725	245	253	227	1,946	623	625	698
Incidental free care and services [2]	6,772	4,101	1,501	1,349	1,252	726	244	253	229	1,945	622	625	699
Reporting on nonprescription drugs	6,785	4,105	1,502	1,353	1,251	729	246	254	229	1,951	625	628	698
Percent reporting on receipt who received—													
1 or more types of care or services [3]	89	90	90	89	90	82	84	82	79	90	88	90	90
Physician care	67	66	64	66	68	60	62	60	58	72	71	72	73
Hospital care	14	14	14	15	14	14	13	16	14	12	12	13	11
Dental care	40	40	41	39	40	33	36	30	31	43	42	42	44
Prescription drugs	67	67	64	68	70	58	61	57	57	71	69	71	72
Miscellaneous services and supplies [1]	39	41	41	40	43	33	33	35	31	36	36	35	38
Incidental free care and services [2]	18	18	18	18	16	19	18	20	18	20	22	21	17
Percent who purchased nonprescription drugs	70	78	78	78	76	55	56	54	54	60	60	61	58

[1] Includes nursing care, chiropractic, eyeglasses, etc
[2] Includes "free medical services such as chest X-rays, vaccinations, inoculations, glaucoma tests, etc"
[3] Includes physician care, hospital care, dental care, prescription drugs, miscellaneous services, and incidental free care.

Of the three demographic variables by which the data are classified, marital status is the only one that reveals any appreciable difference in the receipt of medical care. For single men, receipt of care was reported less frequently on the whole than for either of the other two marital-status groups—the proportion was 82 percent, compared with 90 percent both for married men and nonmarried women.

Physician Care and Prescription Drugs

The physician has been described as a "gatekeeper" for the medical care of his patients by an observer of utilization patterns in a discussion of the high correlation between physician care and other kinds of medical services.[30] Another observer found that the "purchase of prescribed medicines was affected . . . by the same factors which affected visiting a physician."[31] Retirement History Study findings support these observations by the similarity in the figures for the percentage of persons who visited a physician and the percentage who used prescribed medicines. In addition, where the one category showed a difference with age the other changed in the same direction—upward for married men and single women, downward for single men (table 7).

The following tabulation provides a comparison of data from the Retirement History Study and the Health Interview Survey on the proportions receiving physician care.

Sex and age	Percent with one or more physician visits	
	Retirement History Study, 1968	Health Interview Survey, 1969 [1]
Men aged 58–63	65	66
58–59	64	65
60–61	65	66
62–63	66	66
Women aged 58–63	[2] 72	70
58–59	[2] 71	70
60–61	[2] 72	68
62–63	[2] 73	72

[1] National Center for Health Statistics, special tabulations from the Health Interview Survey
[2] Excludes women with no spouse present.

Both sets of data document anew the fact that more women than men, relatively, consult physicians. A characteristic with regard to overall care, this tendency has also been observed in patients with one specific condition, reported recently in a study of people with arthritis.[32]

[30] Ronald Andersen, *op. cit.*, page 30.
[31] Esko Kalimo, *op. cit.*, page 23.
[32] Ruth Elder and Roy M. Acheson, "Social Class and Behavior in Response to Symptoms of Osteoarthrosis," *Milbank Memorial Fund Quarterly*, October 1970, part 1, pages 487–494.

Hospital Care

The age bracket 58–63, the range of the RHS sample members at the time of the collection of the baseline data in 1969, covers a transitional period. These individuals are still, by and large, a part of the labor force, but with respect to more personal characteristics this preretirement group looks more like "65 and over" than like "under 65." Three-fourths of the respondents who have children, for instance, are no longer contributing to their support, and their use of health services noticeably reflects the effects of aging.

The data most readily available from published sources—that is, from the Health Interview Survey of the National Center for Health Statistics—provide information on age categories of 45–64 and of 65 and over in most instances, and therefore serve to point up the transitional aspect of the RHS subjects. With few exceptions, corresponding figures from the Retirement History Study for those aged 58–63 fall between the data for the two categories of the Health Interview Survey with which they are compared—as they should if they are measuring the same phenomena.

Item	Health Interview Survey, 1969 [1]		Retirement History Study, 1968 [2]
	Aged 45–64	Aged 65 and over	Aged 58–63
Percent with one or more short-stay hospital episodes in past year	10	16	14
Days of care per person with 1 or more short-stay hospital episodes in past year	14	19	17

[1] Excludes women with spouse present
[2] National Center for Health Statistics, *Vital and Health Statistics*, Series 10, No 60, tables 14 and 15.

Comparative data from both surveys on hospital care for persons aged 58–63 demonstrate the more frequent use of hospital care by men than by women. The following tabulation gives figures relating to persons with one or more short-stay hospital episodes in the past year for each of these surveys—the proportion with such episodes and the number of days of care per person. The figures on days of care, in particular, call to mind the observation that people who do not as a rule receive adequate medical care require longer hospital stays, once hospitalized, than people who receive care routinely and promptly, when needed. Single men in the RHS sample, who held the least favorable opinions of their health and reported other types of care the least frequently, averaged 24 days of hospital care in 1968, compared with 17 for married men (table 8). Ronald Andersen suggests that, taking the home environment into consideration and its possible effect on recuperation, a doctor may tend to keep single men in the hospital longer than other patients.[33]

Sex and age	Health Interview Survey, 1969 [1]	Retirement History Study, 1968
	Percent with one or more episodes	
Men aged 58–63	12	14
58–59	12	14
60–61	13	15
62–63	13	14
Women aged 58–63	11	[2] 12
58–59	11	[2] 12
60–61	12	[2] 13
62–63	12	[2] 11
	Days of care per person	
Men aged 58–63	17	18
58–59	20	19
60–61	16	18
62–63	16	17
Women aged 58–63	14	[2] 17
58–59	13	[2] 16
60–61	15	[2] 19
62–63	15	[2] 17

[1] National Center for Health Statistics, special tabulations from the Health Interview Survey.
[2] Excludes women with spouse present.

TABLE 8.—Days of hospital care: Percentage distribution of persons aged 58–63, by days of care, marital status, and sex, 1968

Days of care	Total	Men, spouse present	Men, no spouse present	Women, no spouse present
Number with hospital care (in thousands)				
Total	904	576	103	225
Reporting on days of care	902	574	103	225
Percent reporting on days of care	100	100	100	100
1–7	40	42	31	38
8–14	28	28	26	30
15–28	18	17	20	19
29 or more	14	13	22	12
Mean days	*17*	*17*	*24*	*17*

[33] Ronald Andersen, *op. cit.*, page 51; see also Herman M. Somers and Anne R. Somers, *op. cit.*, page 180; Louis Kriesberg, "The Relationship between Socio-Economic Rank and Behavior," *Social Problems*, Spring 1963, page 346; Charles G. Oakes, "Sociomedical Problems Among the Elderly," in Rosamonde R. Boyd and Charles G. Oakes (eds), *Foundations of Practical Gerontology*, University of South Carolina Press, 1969, page 91.

Dental Care

Dental care differs from other kinds of medical care in the factors that affect its use the most directly. Need for care affects dental utilization less than utilization for other types of service.[34] In addition, dental care has a long-established direct relation to income level that has not lessened in the past several decades as has the relation of income to hospital and physician care.[35] With fewer than half of either the men or the women aged 58–63 reporting the receipt of dental care in 1968, however, the relationship between income and utilization in the RHS sample is not discernible without further analysis. Among women, who have the lowest median income, just over two-fifths reported receiving dental care; with more than twice as high an income, the proportion of men who reported receiving dental care was no larger (table 6).

Another difference is that, unlike hospital care and physician care in their increase with age, dental care, measured by the proportion of those whose last visit was within the preceding year, is highest in the age category 15–24 and decreases thereafter.[36] In all age brackets, since at least 1957, dental utilization has been increasing. It is therefore to be expected that Health Interview Survey figures from earlier surveys for the age bracket 45–64 would not exceed the current figures in spite of the lower age. The following tabulation combines data from the Health Interview Survey and the Retirement History Study in chronological order, to show the increase in utilization over a period of time within the same age bracket, as well as the apparent decrease with advance in age beyond the twenties.

Sex	Percent with 1 or more dental visits in the past year					
	Aged 45–64			Aged 58–63		Aged 65 and over, 1969 [1]
	1957–58 [1]	1963–64 [1]	1969 [1]	1968 [2]	1969 [3]	
All persons	32	38	42	[4] 40	37	23
Men	----------	37	41	39	36	22
Women	----------	40	43	[4] 43	38	24

[1] National Center for Health Statistics, *Vital and Health Statistics*, Series 10, No 29, tables A and 11, and No 70, table 16
[2] Retirement History Study.
[3] National Center for Health Statistics, special tabulations from the Health Interview Survey
[4] Excludes women with spouse present

Both sets of data indicate the more frequent reporting of dental care by women, a factor reflected in their greater tendency to replace missing teeth, discussed below. The difference between men and women in this respect emerges at all age levels.

A cross-sectional difference, with age, in the proportion with dental visits is also indicated in both the RHS and the HIS data—with one interesting exception that suggests a difference in utilization between married and single women. The nonmarried women in the RHS sample reported replacement of teeth with greater frequency as age advanced, and they also show an upward trend with age, however slight, in the percentage with dental visits. For all women, however, the trend in dental visits shown by the HIS figures is downward with age.

The following data are from the two surveys:

Sex and age	Percent aged 58–63 with one or more dental visits in the past year	
	Retirement History Study, 1968	Health Interview Survey, 1969 [1]
Men		
58–59	40	38
60–61	38	37
62–63	39	33
Women		
58–59	[2] 42	40
60–61	[2] 42	39
62–63	[2] 44	35

[1] National Center for Health Statistics, special tabulations from the Health Interview Survey
[2] Excludes women with spouse present

Replacement of lost teeth.—It can be assumed that some of the dental visits that occurred in 1968 were for the purpose of "replacement of lost teeth" (if not for the sad purpose of losing them). The replacements themselves were not, however, necessarily related to the 1968 visits reported above.

A comparison of the proportion of persons with dental loss and the proportion with no dentures does not indicate the extent of unmet need. Replacement of teeth in every case of loss is not invariably considered essential but depends on the individual situation and the judgment of the dentist. Over 90 percent of those with com-

[34] Ronald Andersen, *op. cit.*, page 55
[35] Louis Kriesberg, *op cit.*, pages 347ff.; H. Ashley Weeks, *op. cit.*, pages 40ff.: and Ronald Andersen, *op. cit.*, page 18
[36] National Center for Health Statistics, *Vital and Health Statistics* (Series 10, No. 63), table 19.

plete loss had dentures, with no substantial variation according to age. Single men lagged about 10 percentage points behind the others (table 6). Partial replacement was more pronounced among the women in the sample than among the men. From ages 58–59 to ages 62–63, the tendency to have partial dentures was upward for women (from 57 percent to 67 percent) and for married men (48 percent to 53 percent); it was downward for single men (51 percent to 42 percent).

Nonprescription Drugs

Nonprescription drugs are not included in the overall category of health care because of the difficulty of accounting for specific drugstore purchases without the inadvertent inclusion of unrelated sundries. It is also difficult to limit the cost of medicines like aspirin and cough syrup to the respondent alone when his household includes other persons and the items in question have joined the other nostrums in the family medicine chest. There is interest, nevertheless, in nonprescription drugs because they are widely used and because of the inverse relation, long observed, between a person's income level and his reliance on nonprescribed drugs—as marked in its way as the direct relation between income and dental care.[37] Because of this interest, the Retirement History Study provides some information on nonprescription drugs.

Purchases of nonprescription drugs as reported by the RHS sample indicate their importance no less to people in late middle age than to the population at large. As many reported their purchase as reported any of the other types of care or services: 78 percent of the married men, 55 percent of the nonmarried men, and 60 percent of the nonmarried women (table 7). The overall proportion was 70 percent—in the range of physician care and prescription drugs, which were reported by 67 percent.

Postponement of Care

Postponement of care is associated with many of the same characteristics as utilization itself. Studies of the one also treat of the other. Both imply recognition or belief that care is needed. Although delay or postponement might fall into a classification of nonreceipt, it has implications about health care that differ from simple nonreceipt of care. The latter may indicate that there was no contact with the medical world; the former points to the possibility of unmet needs. In view of the notion that some persons nearing age 65 put off medical treatment in anticipation of the benefits of Medicare, it will be of interest to note any increases in postponement as the members of this sample approach eligibility. As of 1969, the majority of the sample was not near enough to age 65 for a definitive observation; for the present, however, the cross-sectional view that is available provides no support for this belief.

H. Ashley Weeks found that most people "will take positive action concerning their health . . . if they grew up in families where good health was stressed and their present cultural and social environment continue to support such a view" and that "where circumstances have been and are adverse, people tend to accept as inevitable a lesser degree of well-being and do little or nothing to improve it."[38] Postponement implies recognition of the importance of health care that is countered by an obstacle like inaccessibility or straitened finances more than it implies simply taking ills for granted.

This is borne out in several ways by the answers to the RHS question: "Is there some kind of care or treatment that you have put off even though you may still need it?" First, by the fact that the marital-status group with the lowest average income—nonmarried women—reported postponement with the greatest frequency (30 percent) and at the same time had equal or higher rates of utilization; married men, who had the highest average income, reported postponement somewhat less frequently (24 percent) than the

[37] See H. Ashley Weeks, *op. cit.*, page 49; Ruth Elder and Roy M. Acheson, *op. cit.*, page 498; E. Harvey Estes, Jr., "Health Experience of the Elderly," in Ewald Busse and Eric Pfeiffer (eds.), *Behavior and Adaptation in Late Life*, Little, Brown, 1970, page 127; Edward G. Ludwig and Geoffrey Gibson, "Self Perception of Sickness and the Seeking of Medical Care," *Journal of Health and Social Behavior*, June 1969, pages 125–133; David Mechanic, "The Sociology of Medicine," *Journal of Health and Social Behavior*, Winter 1966, pages 245–246; and Andrew C. Twaddle, "Health Decisions and Sick Role Variations: An Exploration," *Journal of Health and Social Behavior*, June 1969, pages 105–115.

[38] H. Ashley Weeks, *op. cit.*, page 78.

TABLE 9 —Postponement of medical care: Percentage distribution of men and nonmarried women aged 58–63 who postponed medical treatment, by type of treatment, marital status, and sex, 1969

Condition or type of care	Total	Men, spouse present	Men, no spouse present	Women, no spouse present
Number (in thousands)				
Total	6,800	4,117	729	1,954
Reporting on postponement	6,763	4,102	721	1,940
Percent reporting on postponement	100	100	100	100
No care postponed	74	76	73	70
Care postponed	26	24	27	30
For 1 condition	20	19	20	21
For 2 or more conditions	6	5	6	9
Percent with treatment postponed	100	100	100	100
Dental care [1]	39	40	37	38
Treatment	31	32	29	32
Surgery	7	8	8	6
Diseases of the nervous system and sense organs	22	18	24	29
Physical checkup	16	16	12	18
Diseases of bones and organs of movement	12	12	14	13
Diseases of the digestive system [1]	9	10	9	7
Treatment	7	8	7	5
Surgery	2	2	2	2
Diseases of the circulatory system	8	8	8	9
Diseases of the respiratory system	5	5	6	3
Diseases of the genitourinary system	3	3	3	3
Allergic, metabolic, endocrine and nutritional disorders	3	4	1	4
Injuries	1	1	2	1
Other	5	5	8	7
Diseases of blood and blood-forming organs	(2)	(2)	(2)	1

[1] Only categories in which postponement of surgery was specified by more than 0 5 percent of those who postponed care

[2] 0 5 percent or less

other groups (table 9). Second, finances were blamed for postponement twice to three times as often as any other reason given—and again most frequently by the women. Of the women who postponed care, more than half were doing so for financial reasons (table 10). A fourth were simply finding it inconvenient to go to a doctor or dreaded going out of fear of facing the diagnosis or incurring pain. A fifth named other, less specific reasons. Finances were named more frequently than other reasons by both men and women, considerably less often by men. Men more often said they dreaded going to the doctor, found it inconvenient, or were procrastinating without any specific reason. A similar investigation disclosed no relation between postponement and income but did uncover an inverse relation between reasons for postponement and income: the higher the income the more frequent the reporting of simple procrastination or fear; the lower the income the more frequent the reporting of finances as the reason.[39]

Overall, about 25 percent of the sample members were postponing care for one or more conditions that they felt needed attention. Twenty percent were holding off treatment for one condition, with no difference by sex or marital status (table 9). Nearly twice the proportion of women as of men, however, specified two or more conditions as being neglected.

[39] H. Ashley Weeks, *ibid.*, pages 59–60

TABLE 10 —Reasons for postponement of care· Percentage distribution of persons aged 58–63 who postponed care, by reason, age, sex, and marital status, 1969

Reason for postponement	Men, total			Men, spouse present			Men, no spouse present			Women, no spouse present		
	58–59	60–61	62–63	58–59	60–61	62–63	58–59	60–61	62–63	58–59	60–61	62–63
Number (in thousands)												
Total	447	397	356	388	324	291	59	73	64	191	199	197
Reporting on reason	434	386	345	377	315	284	57	71	61	183	191	194
Percent reporting on reason	100	100	100	100	100	100	100	100	100	100	100	100
Financial	37	40	42	36	39	41	45	46	45	53	54	50
Convenience	23	20	18	23	21	19	24	14	14	14	16	19
Emotional	18	15	18	18	15	18	14	16	20	12	13	12
No specific reason	15	16	14	16	16	14	8	16	17	10	9	10
Other	7	9	8	7	9	8	9	8	4	10	7	8

The most frequently postponed types of conditions or kinds of treatment are listed below:

Treatment or condition	*Percent*
Dental care	39
Nervous system/sense organs	22
Physical checkup	16
Musculoskeletal	12
Digestive	9
Circulatory	8
Respiratory	5

Source: Derived from table 9.

Only one category of conditions—nervous system and sense organs—was mentioned by significantly more women than men. The postponement of surgery, as distinct from treatment, was reported by any considerable number of people only for dental conditions and digestive disorders.

Except for two categories—dental care and checkup, which are not primarily disabling conditions—these postponed conditions are the same as those singled out in a study recently published by Duke University as responsible for the greatest amount of disability in its subjects, especially the poorest and oldest.[40] It can be anticipated that the Retirement History Study may provide some observation of the effects of current postponement on health in the retirement years as distinct from the effects of other events or situations, concurrent or in the offing for RHS subjects.

SUMMARY

In summary, thirty-five percent of the people in the sample had a health condition that limited the kind or amount of work they could do; for 13 percent, the condition was severe enough to preclude their working altogether. For the other 22 percent, nearly half had had to turn to a different kind of work after they became disabled, but the others could still do the same kind of work they had been doing. An additional small group (4 percent) had a health condition that gave them difficulty in moving about without affecting their capacity for work. Sixty-one percent were free of any kind of health condition that limited how well they could move about or that affected the kind or amount of work they could do. With regard to dental health, a third of all persons were edentulous and only 5 percent still had all their permanent teeth. For the most part, American people aged 58–63 were satisfied with their health. Eight out of 10—some of these in spite of disabilities—said their health was equal to or better than that of other people their age.

Two-thirds of the sample members, in 1968, consulted a physician and the same number obtained prescriptions; 40 percent obtained medical services such as nursing care or chiropractic or they purchased supplies such as eyeglasses; about the same proportion received dental care; 14 percent were in a hospital overnight or longer; and 18 percent received incidental free care such as a chest X-ray, a glaucoma test, or a vaccination. Women, typically, reported receipt of most types of care somewhat more frequently than men, and nonmarried men received care somewhat less frequently than either married men or the women. Within the 6-year age span of these respondents in their late 50's and early 60's, there were no notable differences in receipt of care with age.

Although the great majority of respondents availed themselves of some kind of medical attention, there was some indication of unmet need in the reports of 1 in every 4 respondents, who had put off seeking care for conditions they felt needed attention. In some instances the reasons did not reflect serious concern on the respondents' part—finding the effort an inconvenience, for example; the predominating reason for delay in seeking medical care, however, was its cost.

In a period of change in pace and capacity, these assessments will not remain the same; some will change for the better, some for the worse. Little is known of the differences between those who benefit from retirement and those who do not. The association of poor health with retirement could simply be due to the fact that up to the present, one of the most frequently given reasons for retiring—and especially for retiring early—has been health.

Retirement History Study subjects are in the latter portion of the so-called middle years—approaching age 65. How these people fare as they enter the retirement years—why some people thrive, others wither—are questions to which the Retirement History Study is seeking answers.

[40] Robert H Dovenmuehle, Ewald W. Busse, and Gustave Newman, "Physical Problems of Older People," in Erdman Palmore (ed.), *Normal Aging: Reports from the Duke Longitudinal Study, 1956–1969*, Duke University Press, 1970, pages 29–30.

Technical Note

This report is based on first-year data, collected in 1969, as the baseline for a 10-year longitudinal study conducted by the Social Security Administration to study the retirement attitudes, plans, resources, and activities of older Americans. The study, composed of individuals in three initial age cohorts, those aged 58–59, 60–61, and 62–63, will focus on three groups for whom retirement is meaningful: (1) married men, wife present, (2) nonmarried men, and (3) nonmarried women. Persons in institutions were excluded.

The sampling frame selected for the Retirement History Survey (RHS) was that used by the U.S. Bureau of the Census for the Current Population Survey (CPS).[1] Sample members were persons who met the age-sex-marital status requirements described above and who lived in households that had last participated in CPS before February 1969. In any month the CPS panel consists of eight groups of households selected up to 18 months previously. The "oldest" of these rotation groups is dropped and replaced by a new one each month. In order to get a sample size for RHS of approximately 13,000 persons, 19 of these "discontinued" groups were used.

Information was gathered from sample members by interviewers of the Bureau of the Census. The interview schedule contained six sections: (1) labor-force history, (2) retirement and retirement plans, (3) health, (4) household, family, and social activities, (5) income, assets, and debts, and (6) spouse's labor-force history.

Noninterviews

A total of 12,549 persons from the CPS sampling frame met the RHS criteria of age, sex, and marital status. Of these 11,153 furnished complete schedules, giving a response rate of 89 percent. The reasons for noninterviews are given in table I.

TABLE I.—Reason for noninterview

Total	1,396
Refusals	717
Deceased	255
Unable to contact	237
Temporarily absent	45
Institutionalized	45
Other [1]	39
Lost in mail	27
Partial interviews [2]	26
Duplicate cases	5

[1] Includes those who were mentally unable to answer the questions, those out of the country for a long visit, etc
[2] Less than two-thirds of the interview schedule completed.

Estimation

Estimates of population numbers were made by weighting the individual sample members by appropriate weights outlined by the Bureau of the Census for the CPS. Since the weighting procedures used for the estimation assume a response rate of 100 percent, an adjustment to the weights was necessary to account for noninterviews. The sample members were divided into categories of race, sex-marital status, age cohort, and region of the country. Then by the application of a category-specific adjustment, the respondents were weighted to represent not only themselves but also the nonrespondents in their category.

After all weighting and adjustment the average weight for a sample member was 612.7. Thus the 11,153 respondents represent 6,834,000 persons in the population who in the spring of 1969 had the age and sex-marital status characteristics outlined for RHS.[2]

Sampling Variability

Since the population estimates given in this report are based on the response of individuals in a sample, they will differ from the values that would have been obtained in a complete census. A measure of this sampling variability of an estimate is given by the standard error of the estimate. Generally speaking, the chances are about 68 out of 100 that an estimate will differ from the value given by a complete census by less than one standard error. The chances are about 95 out of 100 that the difference will be less than twice the standard error.

Table II gives approximate standard errors

[1] Bureau of the Census, *The Current Population Survey—A Report on Methodology*, Technical Paper No. 7, 1963.

[2] Forty-eight women who were not married at the time of their selection into the sample were married at the time of their first interview. Their interviews were excluded from the 1969 tabulations, but their retention as sample members brings the total to 11,153.

TABLE II.—Approximations of standard errors of estimated totals

[In thousands]

Level of estimate	Standard error
50	5
100	8
150	10
200	11
250	13
300	14
400	16
500	18
600	20
700	22
800	23
900	24
1,000	26
2,000	36
2,500	40
3,000	44
4,000	51
5,000	56
6,000	61
7,000	65

for the total number of individuals estimated from the sample to have certain characteristics. Table III gives approximate standard errors for estimated percentages. Linear interpolation may be used to obtain values not specifically given. In order to derive standard errors that are applicable to a wide variety of items, a number of assumptions and approximations were required. As a result the tables of standard errors provide an indication of the order of magnitude rather than the precise standard error for any specific item.

Suppose, for example, it is estimated that 52 percent of 400,000 men have a certain characteristic. Interpolation in table III gives an estimate of the standard error to be 2.2 percent. Thus with 95 percent confidence the percentage of men in the population with this characteristic lies between 47.6 and 56.4.

In order to make a rough determination of the statistical significance of the difference between two independent percentages, the following procedure may be used. Find estimates of the standard errors of the percents in question, using table III. Square these standard errors to get variances and add the variances. Take the square root of this sum to get the standard error of the difference. If the absolute difference between the two percentages in question is greater than twice the standard error of the difference, they are said to be significantly different from one another at the 5-percent level.

TABLE III.—Approximations of standard errors of estimated percentages

Base of percentages (in thousands)	Percent								
	2 0 or 98 0	5 0 or 95 0	8 0 or 92 0	10 0 or 90 0	15 0 or 85 0	20 0 or 80 0	25 0 or 75 0	30 0 or 70 0	40 0 or 60 0	50 0
50	1 7	2 6	3 3	3 6	4 3	4 8	5 2	5 5	5 9	6.0
100	1 2	1 8	2 3	2 6	3 3	3 4	3 7	3 9	4 2	4 2
150	1 0	1 5	1 9	2 1	2 5	2 8	3 0	3 2	3 3	3.5
200	8	1 3	1 6	1 8	2 1	2 4	2 6	2 8	2 9	3.0
250	.8	1 2	1 5	1 6	1 9	2 2	2 3	2 5	2 6	2 7
300	7	1.1	1.3	1 5	1 8	2 0	2 1	2 2	2 4	2 4
400	6	1 0	1 2	1.3	1 5	1 7	1 8	1 9	2 1	2 2
500	5	.8	1 0	1 1	1 4	1 5	1 6	1 7	1.8	1.9
600	5	.8	9	1 0	1 2	1 4	1 5	1.6	1 7	1 7
700	4	.7	9	1 0	1 1	1 3	1 4	1 5	1 6	1.6
800	4	7	8	9	1 1	1 2	1 3	1 4	1 5	1 5
900	4	6	8	.8	1 0	1.1	1 2	1 3	1.4	1.4
1,000	4	6	7	.8	1 0	1 1	1.2	1 2	1 3	1.3
2,000	3	4	5	6	.7	.8	8	9	.9	.9
2,500	2	4	5	5	6	.7	7	.8	.8	.8
3,000	2	3	.4	5	.6	6	.7	.7	.8	.8
4,000	2	.3	4	4	5	.5	6	.6	.6	.7
5,000	2	.3	.3	.4	4	.5	.5	.5	.6	.6
6,000	2	2	3	3	.4	4	.5	5	.5	.5
7,000	1	2	3	.3	4	.4	.4	.5	.5	.5