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## **Aging in the Eighties**

### **Preliminary Data From the Supplement on Aging to the National Health Interview Survey, United States, January–June 1984**

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#### **Introduction**

The National Health Interview Survey is the National Center for Health Statistics' large continuing survey of the civilian noninstitutionalized population of the United States. Each year people in about 42,000 households are interviewed by U.S. Bureau of the Census interviewers to obtain information about their health and use of health care. Demographic information that is needed to interpret the data is also obtained. The interviewers have special training on this survey in addition to their regular training, and response rates are high—about 97 percent. The only item with a relatively low response rate is family income.

In 1984 a special supplement was added to the questionnaire to obtain information about elderly people who were living in the community. This supplement, the Supplement on Aging (SOA), was designed to collect information about physical limitations, chronic conditions, housing, retirement status, interactions with family and organizations, use of community services, and other health-related information about middle-aged and older people.

All household members age 65 years and over and a half sample of those 55–64 years of age were asked the questions on the supplement themselves where possible. Another household member was interviewed only when the selected person was unable to answer either because of physical or mental problems or because of being away from the household for a longer period than the interviewer would be in the area. Response rates to the SOA were also high. Of the 5,982 people age 65 years and over who were interviewed in households in January–June 1984, 96 percent had complete interviews; 92 percent answered the questions on the SOA for themselves.

The data in this report are from the interviews that were completed during the first 6 months of 1984. The data are

preliminary because only one-half of the year is included and because the data from the SOA have not been edited. Including the full year will double the size of the sample and make estimates more reliable. It will also eliminate any possibility of bias because of seasonality. Editing will change some of the estimates from the SOA that are in the text because information from other parts of the questionnaire or from other family members will be used to correct missing or inconsistent information.

The preliminary data about people age 65 years and over are being published because the need for information about the elderly is critical, and 5,982 people is a large enough sample to make estimates that are reliable for many purposes. The reader should use the material in the technical appendix before deciding that differences not mentioned in the text are likely to be statistically significant. The number of people in the sample is given in each table in addition to the national population estimates that are the base of the percentages to make that simple.

The primary purpose of this report is to provide background data. Much of the information could be obtained from other publications based on data from the National Health Interview Survey (NHIS). The tables are unique only in their focus on a particular population of interest.

The information is presented in the tables for three age groups. The data for people age 85 years and over are shown separately because the number of people in this age group is increasing rapidly and because relatively little is known about them. However, the reader should remember that there were only 448 people in this half-year of the sample who had had an 85th birthday. Differences between them and younger people that appear to be large may not be statistically or even substantively significant.

Information is also presented for both men and women because the older population is primarily a population of older







## Health opinions

There were questions on the SOA designed to allow people to give their opinions about their health, their level of physical activity, and changes within the past year. Optional responses were part of each question, and check boxes were provided for the interviewer to record the responses. The questions were asked only of the 5,167 people who answered all the questions on the SOA for themselves. They could differ from other people whose answers to other parts of the SOA were from proxy respondents. For example, of the 815 people who did not answer for themselves, 60 percent were recorded as being physically or mentally incapable. The proportion unable to perform their usual activity and the proportion in poor health were 15 percent of the proxy versus 11 percent of the self-respondents. However, the proportion not limited in activity and the proportion in excellent health were equal in the two groups. Thus, there is some indication that the self-respondents are a select group, but those who did not answer for themselves were certainly not all incapacitated.

They were first asked, "How good a job do you feel you are doing in TAKING CARE of your health?" Nine out of 10 thought they were doing a good job, with 24 percent excellent, 32 percent very good, and 34 percent good. Most of the remainder felt they were doing a fair job; very few felt they were doing a poor job. The majority felt they had control over their future health, 35 percent felt they had a great deal of control, and 46 percent felt they had some control. Only 8 percent felt they had very little control, and 7 percent felt they had no control.

Most of the self-respondents had not worried much about their health in the past year. In response to the question about the amount of worry their health had caused them in the past year, 49 percent reported no worry at all and 16 percent had had hardly any worry. However, 27 percent had had some worry and 8 percent had had a great deal.

When asked about their physical activity compared with others the same age, 44 percent of the people responding for themselves considered themselves more active and 43 percent felt their level of activity was about the same as other people their age. Of those who thought themselves more active than their peers, the majority, 63 percent, felt that they were a lot more active.

When asked to compare their present level of physical activity to their own activity a year earlier, most reported that it was about the same. Only 8 percent felt they were more active and 18 percent felt they were less active. However, 58 percent of those with decreased physical activity said that it was only a little less.

The majority, 58 percent, felt they got as much exercise as needed. In response to other questions, 29 percent followed a regular routine of physical exercise and 14 percent walked at least a mile every day without resting. However, 71 percent of them did not follow a regular routine of physical exercise and 56 percent never walked a mile or more without resting.

## Use of health care

About four out of five (82 percent) of the people who were 65 years of age or over had seen a physician within the pre-

vious year (table 4). Another 6 percent had seen a physician within 2 years. However, 12 percent of these people had not seen a physician for more than 2 years despite their being at an age when the risk of need for medical care is high.

Most of them appeared to have received relatively routine medical care judging by the number of contacts they had had with physicians during the previous year. They had seen a physician but, on the average, not more than every other month or so, that is, they had had 1–6 contacts during the year. Only 8 percent had had 13 contacts or more with a physician during the year.

Perceptions of health were highly associated with the amount of medical care. The people who had not seen a physician within a year generally rated their health higher than those who had seen a physician. For example, 26 percent of those who had not seen a physician rated their health as excellent, 22 percent as very good, and 32 percent as good. Seventy-seven percent had no limitation on their usual activity. In contrast, the majority of the people with seven or more visits during the year rated their health as only fair or poor and only 34 percent had no limitation on their usual activity.

The difference between the youngest and oldest age groups in the proportion who had been hospitalized during the preceding year was large and programmatically significant in this population of people of an age to be Medicare eligible. Overall, about 20 percent of the people age 65 years and over who were living in the community at the time they were interviewed had been in a hospital overnight or longer during the preceding year. However, only 18 percent of those ages 65–74 years in contrast with 29 percent of those age 85 years and over had been hospitalized during the year. When one considers that hospitalization rates are much higher in the year preceding death or institutionalization,<sup>4–6</sup> and that the experience of such people is excluded from the retrospective data from NHIS, these differences assume added importance.

## Discussion

In general, older people living in the community show only a slight decline in health status with increasing age. Responses to only one of the three general questions about health status revealed a difference. Responses to the questions about ambulatory contacts with physicians also showed little difference with age. However, the responses to questions about limitation of activity and use of hospital care did show differences among the people in the three age groups. A relatively large proportion of the oldest part of the population of people age 65 years and over remaining in the community were functionally impaired or had used inpatient medical care during the previous year.

However, the proportion is only relatively large. The general picture of people who have had a 65th birthday is that of a population of people who vary a great deal among themselves. Sixty percent of the people age 65 years and over and 40 percent of those age 85 years and over were not limited in activity. Eighty-two percent and 71 percent, respectively, had not been hospitalized during the previous year. The population consisted of people who were college graduates as well as those who had



## Technical notes

Each week a probability sample of households in the United States is visited by U.S. Bureau of the Census interviewers to obtain a wide range of information about the health and health care characteristics of the people living in those households. A description of the survey design, methods used to make the national estimates, and general qualifications of the data are provided in *The National Health Interview Survey Design, 1973–84, and Procedures, 1975–83*.<sup>7</sup>

In January–June 1984 there were about 21,000 households in the sample. The total noninterview rate was about 3 percent—mostly because the interviewer was unable to locate an eligible respondent despite repeated calls.

The rules for the survey are that all adults who are in the household when the interviewer calls are asked to join in the interview and to respond for themselves. People age 65 years and over are likely to be at home and are, thus, more likely to respond for themselves to the questions on the basic, or core, questionnaire. During the first 6 months of 1984, 84 percent answered the questions themselves.

For the Supplement on Aging (SOA), the interviewers made an additional effort to encourage the people selected to answer the SOA questions and to respond for themselves. They encouraged the household respondent to ask an older person to talk to the interviewer and, if necessary, made extra calls. The results of their efforts were both positive and negative. The positive result was that an even higher proportion, 92 percent, of the responses to the SOA were completely self responses. The negative result was that in a few cases information was obtained from a household respondent for the core questions but no information was obtained for the supplement. Fortunately the latter was rare; 5,629 of the 5,982, 95 percent, of the people age 65 years and over who were in the sample during January–June had complete interviews on the supplement.

The estimates in this report are based on a sample rather than on the entire population of people age 65 years and over in the civilian noninstitutionalized population. Therefore, the estimates are subject to sampling error. In addition, the sample had a complex design that has the effect of making the sampling errors somewhat larger than they would be from a simple random sample of the same size using the same procedures.

A conservative estimate is that, on the average, the variance for estimated proportions from this sample is 20 percent larger than it would have been from a simple random sample of the same size using the same procedures.

To estimate the sampling errors, convert the percent to a proportion, calculate the variance of a proportion assuming simple random sampling, multiply that variance by 1.2 to allow for the complex sample, then compute standard errors, confidence intervals, or significance tests.

For example, the estimate is that 45 percent of the 1,990 thousand people age 85 years and over lived alone. There were 448 people in the sample age 85 years and over; therefore,

$$\begin{aligned}\text{Variance (simple random sample)} &= \frac{pq}{n} \\ &= \frac{(0.45)(0.55)}{448} \\ &= 0.0006\end{aligned}$$

$$\begin{aligned}\text{Variance (complex sample)} &= (0.0006)(1.2) \\ &= 0.0007\end{aligned}$$

$$\begin{aligned}\text{Standard error} &= (0.0007)^{1/2} \\ &= 0.0257\end{aligned}$$

$$\begin{aligned}95 \text{ percent confidence interval} &= 45 \pm (1.96)(2.57) \\ &= 45 \pm 5 \text{ percent.}\end{aligned}$$

Because the estimation procedure includes poststratification to independent U.S. Bureau of the Census estimates, there is no sampling error for the number of people age 65 years and over—either for the total or for either sex.<sup>7</sup> The only sampling error is in the numerator. Therefore, the sampling errors for those groups are somewhat smaller than estimated by this method.

Perhaps more important for interpretation than sampling errors, however, is a thorough understanding of what data from this, or any other, cross-sectional survey can provide. There are two issues—one important for any cross-sectional analysis and the other of especial importance for older people.

The NHIS is a point-in-time study. Associations at one point in time should not be interpreted as causality. The differences among the age groups, for example, could be the result of aging or, alternatively, they could be the result of different cohorts moving through time. Based on external knowledge, one could interpret a difference in health status as the result of aging and a difference in educational status as the result of cohort differences, but the data from a cross-sectional survey do not enable one to make that distinction.

The second is that this is a study of people who were living in the community at the time they, or a proxy respondent, were interviewed. All of those elderly people who had left the population, either through death or institutionalization, are excluded. Thus, the estimate that 20 percent of the elderly people had been hospitalized during the preceding year should not be interpreted to mean that only 20 percent of all elderly people had been hospitalized during the year. Hospitalization rates are high during the year preceding death or institutionalization,<sup>4,6</sup> and the experience of those people is not included in these estimates.

NOTE: A list of references follows the text.

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**Suggested citation**

National Center for Health Statistics, M. G. Kovar: Aging in the eighties, preliminary data from the Supplement on Aging to the National Health Interview Survey, United States, January–June 1984. *Advance Data From Vital and Health Statistics*. No. 115. DHHS Pub. No. (PHS) 86–1250. Public Health Service, Hyattsville, Md., May 1, 1986.

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