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## Access to Health Care Part 3: Older Adults

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# Access to Health Care Part 3: Older Adults 

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## Objectives

This report examines access to health care for older adults, 65 years of age and over, in the United States for 1993. Access indicators include having a regular source of care, place of care, main reason for no regular source of care, unmet health care needs, and use of clinical and preventive services. Sociodemographic characteristics include sex, age, race, income, health status, and health insurance coverage.

## Methods

Data are from the 1993 Access to Care, Health Insurance, and Year 2000 Surveys of the National Health Interview Survey (NHIS), a continuing household survey of the civilian noninstitutionalized population of the United States. The sample for the Access to Care and Health Insurance surveys contained 61,287 persons in 24,071 households. The sample for the Year 2000 survey was 21,028 persons.

## Results

Persons with Medicare and private or Medicare and public coverage were more likely to have a regular source of medical care than elderly persons with Medicare only. Over 3.3 million elderly persons had at least one unmet need in 1993. Older adults on Medicare and public or Medicare only coverage were twice as likely to have unmet medical needs than those with Medicare and private coverage. Persons with Medicare and private coverage were more likely to receive immunizations than elderly persons with Medicare and public coverage or Medicare only.

## Conclusions

Although the majority of older adults have Medicare, this only provides a basic level of access to the health care system. Older adults who do not supplement Medicare with private coverage are at the greatest risk of having unmet health care needs.

Keywords: access to care • regular source of care $\cdot$ reason for no regular source of care $\cdot$ unmet need - clinical and preventive services • health insurance

# Access to Health Care Part 3: Older Adults 

Robin A. Cohen, Ph.D.; Barbara Bloom, M.P.A.; Gloria Simpson, M.A.; and P. Ellen Parsons, Ph.D., M.P.H.

## Introduction

The age composition of the population in the United States has changed dramatically during the 20th century. Most impressive has been the increase in the size of the population 65 years of age and over. At the turn of the century, elderly persons accounted for approximately 4 percent of the population (1). In 1993, elderly persons accounted for over 12 percent of the population, or almost 32 million persons. This "graying" of America has important economic and social policy implications, and puts demands on local, State, and Federal social welfare systems and on health care systems in general.

This report presents national estimates on elderly adults, 65 years of age and over, of some basic measures of access to medical care including having a regular source of care, place of regular source of care, and unmet medical needs. In addition, routine preventive services are examined in relation to insurance coverage. Descriptive data are presented by health insurance status and other sociodemographic characteristics with a particular emphasis on socioeconomic status and race.

Measuring and monitoring access to health care has been a central concern of public health and health services researchers and has been of increased interest since the creation of Medicare and Medicaid in 1966 (2,3). Traditional measures of access have included health insurance coverage, presence of a regular or usual source of care and its characteristics, and use of medical services. Both theoretical and empirical studies of access have emphasized the
importance of having health insurance and a regular source of care in assuring that persons in need of medical care have easy access to it (4-7). These recent studies have also encouraged more in-depth evaluation of access to care, particularly in relation to need, outcomes, and quality of care (4-6).

According to the behavioral model of health service use originally developed by Anderson (8) and refined over the years ( $8-11$ ), having health insurance and a regular source of care constitute "enabling factors" that facilitate the use of health services. Both give timely entry into the medical care system when acute care is needed-the former by providing financial access and the latter through familiarity at least, and convenience, confidence, and satisfaction at best. It is well established in the literature that the presence of both does enhance use of services, and indeed, they are among the strongest predictors of health service use ( 6,7 ).

Site of the regular source of care and type of insurance are also important determinants of access. Not all sources of care are alike. Doctors' offices (or a health maintenance organization (HMO)) have traditionally been likely to provide continuity of care and a full complement of preventive health care services. Both are essential components of good quality primary care (12). Public clinics, community health centers, and hospital outpatient departments may also provide good primary care to regular users, especially if there is a well-established relationship between the patient and a particular provider (6). Emergency rooms, however well-equipped to provide emergency care, are not organized to
provide either continuity of care or preventive services to those who claim to use the emergency room as a regular source of care (7).

Although most people would benefit from the preventive services often available through a regular source of care, studies have shown that most people without a usual source of care report not wanting or needing one (13). There are many reasons for not having a regular source of care. Lack of health insurance or other means to pay for care is a major concern (7).

Although 96 percent of the elderly population have Medicare (14), coverage for medical services is not comprehensive. Therefore, the majority of elderly persons have either private or public insurance to cover medical expenses not covered by Medicare $(15,16)$. However, 20 percent of those 65 years of age and over rely solely on Medicare to assist in their medical bills (14). Persons without the supplemental insurance are more likely to be minority, female, or have poor or low income. Previous research indicates that the poor and members of racial and ethnic minority groups are most likely to experience poor access to medical care (7,17,18).

Frequently used measures of access to care are based on contact with the health care system. The assessment of unmet medical need represents a measure of perceived need for care that does not result in use of services. This concept was first developed by Aday and Anderson in the 1970's $(9,19)$. There may not be negative consequences for health resulting from lack of care, but it is important to estimate the volume of need that is not being addressed by the health care system. Both delays in getting and the inability to get needed medical care are considered, as is the inability to get other needed health services, including dental care, eyeglasses, prescription drugs, and mental health care.

Beginning in 1993, access to care data has been collected routinely through the National Health Interview Survey (NHIS). Traditional measures of care include regular source of care, site of that care, type of provider, and reason for no regular source of care. Also for
the first time in a national survey, questions are asked about unmet need for medical and other types of health care services.

This report on access to care among the elderly is the third part of a threepart series of reports on access to health care in the United States for 1993 using data from the NHIS. The first report covers children and youth through age 17 years (20), and the second report is on working-age adults 18-64 years old (21). These three populations were examined separately because they have different health care needs and characteristics. The elderly are more likely than working-age adults to have physical limitations, chronic conditions, and greater health care needs. Children are dependent on adult caretakers for access to health services and need scheduled preventive care for developmental assessment.

## Methods

This report on elderly adults 65 years of age and over uses data from the 1993 Access to Care, the 1993 Health Insurance, and the Year 2000 surveys of the NHIS, a continuing household survey of the civilian noninstitutionalized population of the United States.

The 1993 Access to Care, the Health Insurance, and the Year 2000 surveys were administered in the third and fourth quarters of 1993. The Access to Care Survey included questions about regular source of care, place of care, reasons for no regular source of care, and difficulties in getting medical care. The Health Insurance Survey included questions about type of insurance, insurance costs, services covered, and reasons for no insurance coverage. The Year 2000 survey included questions concerning environmental health, tobacco use, nutrition, occupational safety and health, heart disease and stroke, other chronic and disabling conditions, clinical and preventive services, mental health, and oral health. This questionnaire tracked the Year 2000 objectives. Current Estimates From the National Health Interview

Survey, 1993 (22) includes a copy of all questionnaires and a discussion of NHIS sample design, data collection, and data processing. The Access to Care and Health Insurance questionnaires were administered to 7,661 adults 65 years of age and over. The Year 2000 questionnaire included only one sample person per household for a sample size of 4,255 adults age 65 years and over.

Some of the variables analyzed in this report (regular source of care and unmet needs) have higher levels of item nonresponse than are usually found in the NHIS. For these variables, missing values have been excluded from the analysis. This is equivalent to assuming that missing values are distributed the same way as the known cases in the population. The percent of unknown cases in the total population for the health insurance, the regular source of care, and the unmet need variables are shown in table I of appendix I. Data in table I show that uninsured and minority persons were overrepresented among the unknown cases. This suggests that those with missing values are probably more likely to have access problems than known cases. Excluding the missing values probably underestimates the problems older adults have in obtaining health care services.

Because the estimates shown in this report are based on a sample, they are subject to sampling error, which is measured by the standard error. Percents and standard errors were calculated using SUDAAN, a statistical program for survey data analysis that incorporates the NHIS sample weights and information on its complex survey design (23). SUDAAN uses first-order Taylor series approximations to obtain estimates of variances. Standard errors are shown in parentheses for each estimate.

A $t$-test, with a critical value of 1.96 ( 0.05 level), was used to test all comparisons that are discussed. Statistical tests performed were two-tailed tests with no adjustments for multiple comparisons. Terms in the text relating to differences, such as "greater" and "less," indicate that the differences are statistically significant, and terms such as "similar" or "no difference" mean that there was no difference
between the two estimates. Lack of comment regarding the difference between any two estimates does not mean that the difference was tested and was found not to be statistically significant.

## Race

In this report, a person's race was based on the respondent's description of each household member's racial background. Persons were divided into the following race categories.

White includes both Hispanic and non-Hispanic white adults;

Black includes both Hispanic and non-Hispanic black adults.

Hispanic persons were included in the white and black categories because there were not enough elderly Hispanic persons in the sample for reliable estimates.

## Health Insurance

Persons were classified into health insurance categories based on six questions about type of coverage (private, Medicaid, Medicare, military, Indian Health Service, and other public assistance). Because some individuals have more than one source of insurance, mutually exclusive categories were developed to eliminate analytical problems associated with double counting. Categories include Medicare and private, Medicare and public, Medicare only, other coverage, and uninsured. More information about this insurance hierarchy is in appendix II.

## Regular Source and Place of Care

Persons were classified as having a regular or usual source of care if they responded that they had at least one particular person or place they usually went to when sick or needed advice about health. Persons with a regular source of care sought medical care in a variety of settings. These places were grouped into the following four categories.

## Doctor's office-includes private

 doctors' offices, private doctors' clinics, HMO's, and prepaid groups;Clinic—includes company or school health clinic and/or center; community, migrant, or rural clinic and/or center; county, city, or public county hospital outpatient clinic; and private and/or other hospital outpatient clinic;

Emergency room-includes hospital emergency rooms or departments.

Other—includes all remaining places of care (about 4 percent)psychiatric, military, other, and unknown facilities, which were included in the total but not shown separately.

## Reason for no Regular Source of Care

Respondents who reported no regular source of care were asked to select the reason from a list of reasons. In this report, the responses were grouped into the following categories.

## Doesn't need doctor.

No insurance or cannot afford it.
Unavailable or inconvenientincludes previous doctor who is not available and/or has moved; does not know where to go; no care available and/or care is too far away and/or not convenient.

Do not trust doctors-includes does not like, trust, or believe in doctors.

Other-includes speaking a different language and other reasons.

## Unmet Need

Respondents were asked if anyone in the family was unable to obtain needed medical services at least once in the last 12 months. Those who answered "yes" to any of the following questions were classified as having an unmet need: needed medical care or surgery, but did not get it; delayed medical care because of the cost; needed dental care, prescription medicine, eyeglasses, or mental health care, but could not get it.

## Results

Tables 1-3 present access to care indicators by sociodemographic characteristics (including health
insurance categories) for the total population. Table 1 shows the percent distribution of persons 65 years of age and over with a regular source of care by selected sociodemographic characteristics according to age. Table 2 shows the same sociodemographic information by place of care. Table 3 shows the information for those with unmet medical needs. Table 4 shows the data on clinical and preventive services by type of health insurance.

## Regular Source of Medical Care

In 1993, 94 percent of persons 65 years of age and over had a regular source of medical care and 6 percent reported that they did not have a regular source of care (table 1). Older persons with Medicare and private health insurance or Medicare and public insurance coverage were more likely to have a regular source of care than those who had Medicare only or who were uninsured. Only 63 percent of persons with no medical insurance had a regular source of care.

## Place of Regular Source of Medical Care

Among elderly persons with a regular source of medical care, 91 percent visited a private doctor's office for their health care needs. Only 1 percent of the elderly people used an emergency room as their regular place of care (table 2). Females were more likely than males to have a private doctor as their regular place of care. Only 78 percent of black persons reported a private doctor as their regular place of care compared with 93 percent of white persons. Black persons were 4 times more likely than white persons to use a clinic or emergency room as their regular place of care. Persons at or above poverty or in excellent, very good, or good health were more likely to indicate a private doctor as their regular place of care.

For older people with Medicare and private insurance and a regular source of care, 94 percent went to a private doctor as their regular place of care. Fewer than 1 percent went to the emergency
room as their regular place of care. Three percent used a clinic.

For persons with Medicare and public health coverage or Medicare only coverage, 88 percent used a private doctor. Eighty-three percent of uninsured elderly people used a private doctor as their regular place of care. Only 44 percent of elderly people with other coverage had a private doctor as a regular source of care. For 41 percent of the elderly population with other health coverage, other places of care (such as a Veterans' Administration hospital or clinic or other military health facility) were used (data not shown).

## Reason for No Regular Source of Medical Care

Survey respondents were asked to select from a list of reasons for not having a regular source of medical care. The most common reason was "Do not need doctor." This reason was given by 47 percent of the elderly respondents. Twenty-three percent of this age group indicated lack of availability, knowledge, or inconvenience of care (figure 1). Other reasons given for lack of a regular source of medical care were "Does not trust doctor" (7 percent), "No insurance/cannot afford" (7 percent), and "Other reason" (10 percent).

## Unmet Medical Needs

Overall, 3.3 million persons (almost 11 percent) of the elderly population reported an inability to obtain needed health care. Despite the availability of Medicare and Medicaid, over 1.4 million elderly people in the United States delayed getting medical care because of worry about the cost. This included not getting dental care that they needed at least once in the last 12 months (table 3). In addition, one million elderly persons were unable to get glasses, approximately 600,000 were unable to get prescription medicine, and 500,000 were unable to get medical care.

Health insurance status played a key role in an individual's ability to obtain health care services. Elderly people with Medicare only were twice as likely to


Figure 1. Reason for no regular source of care for persons 65 years of age and over: United States, 1993
delay care or go without medical or dental care compared with those having Medicare and private insurance. Furthermore, elderly persons with Medicare only were 3 times as likely to go without prescription medicine or glasses as those with Medicare and private coverage.

The ability of elderly individuals to obtain health care services also varied by poverty level, race, and sex. When compared with those having an income above the poverty level, elderly people below poverty were at greater risk of going without or delaying the following: prescription medicine ( 6 times as likely); glasses (5 times as likely); medical care ( 3 times as likely); and delaying receiving care ( 3 times as likely). In terms of race, older white people were less likely to report an unmet need than their black counterparts. When compared with white older persons, black older persons were 3 times as likely to go without prescription medicines or glasses. Differences by sex revealed that overall, females delayed care more often and had more problems acquiring services than did men for dental care, prescription medicine, and glasses.

Region of the country and place of residence were also related to the ability
of the elderly to obtain health care. Elderly people living in the South went without prescription medicine and glasses more often than did their peers in the rest of the country, and they were also more likely to go without needed medical care than were those in the Northeast or West.

The percent of elderly persons unable to obtain at least one health care need are shown in table 3 and figures 2 and 3 . Over 3.3 million elderly persons had at least one unmet need in 1993. Elderly persons with Medicare and public coverage or Medicare only coverage were over twice as likely to have an unmet need as were those elderly persons with Medicare and private insurance (figure 2). Elderly persons with family incomes less than $\$ 20,000$ a year were at least 3 times as likely to have an unmet need as were those with higher family incomes (figure 3).

## Clinical and Preventive Services

Among older people, type of health insurance coverage was related to receiving certain clinical and preventive services, including routine physical examinations (table 4). Older people with Medicare and private or Medicare


NOTE: Respondents who answered "yes" to any of the following questions were classisfied as having an unmet need: needed medical care surgery, but did not get it; delayed medical care because of the cost; needed dental care, prescription medicine, eyeglasses, or mental health services, but could not get it.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 1993.
Figure 2. Percent of persons 65 years of age and over with unmet need by insurance coverage: United States, 1993


NOTE: Respondents who answered "yes" to any of the following questions were classisfied as having an unmet need: needed medical care surgery, but did not get it; delayed medical care because of the cost; needed dental care, prescription medicine, eyeglasses, or mental health services, but could not get it.
SOURCE: National Center for Health Statistics, National Health Interview Survey, 1993.

Figure 3. Percent of persons 65 years of age and over with unmet need by family income: United States, 1993
and public coverage were more likely to have had their blood pressure checked in the 3 months prior to interview and more likely to have had a routine checkup within the year prior to interview than those persons with Medicare only coverage. Seventy-three percent of elderly people with Medicare and private insurance or Medicare and
public coverage had a routine checkup less than a year prior to the interview compared with 62 percent for persons with Medicare only.

Persons with Medicare and private insurance were more likely to have had a blood pressure check, cholesterol check, urine test, blood test, and stool test and less likely to have their vision
and hearing checked than persons with Medicare only. Persons with Medicare and public coverage were less likely than elderly persons with Medicare and private coverage to receive a blood or urine test. Older persons with Medicare and public coverage were less likely than their counterparts with Medicare only coverage to have their vision checked and more likely to have their cholesterol checked.

Fifty-five percent of elderly persons with Medicare and private coverage received a flu shot in the previous 12 months compared with only 33 and 39 percent for their counterparts with Medicare and public coverage and Medicare only, respectively (figure 4). Similarly, elderly persons with Medicare and private insurance were more likely to have had a pneumonia vaccination or a tetanus shot within the past 10 years than those with Medicare and public coverage or Medicare only coverage.

Older women with Medicare and private insurance were more likely to have had a Pap smear and/or mammogram within the year prior to the interview than were older women with Medicare and public or Medicare only coverage.

## Discussion

In the recent U.S. Institute of Medicine's report on health care, access to health care was defined as "the timely use of personal health services to achieve the best possible health outcomes" (5). In 1993, over 3.3 million (11 percent) of elderly persons in the United States had an unmet health need, and over 1.4 million delayed medical care because of cost. Those with unmet needs included almost 1.4 million elderly people who were unable to get needed dental care, 1 million who were unable to get glasses, 500,000 elderly people who were unable to get medical care, and 600,000 older persons who were unable to get prescription medicine. Although the majority of elderly people had a regular source of health care, many did not get routine preventive services such as immunizations or Pap smears.


Figure 4. Percent of persons 65 years of age and over who received a flu shot within the past 12 months and percent of older persons who ever had pneumonia vaccination by insurance coverage: United States, 1993

There were large differences in rates of access among the types of coverage. As shown with NHIS data, having supplemental health insurance is related to an array of indicators including having an unmet need, delaying care, having a regular source of care, receiving preventive services, and immunizations.

Delaying care has been associated with significantly longer hospital stays and poorer health outcomes for those conditions requiring hospitalization (24). In 1993, over 3.3 million elderly persons had difficulty or delayed obtaining health care. In a study of patients at an urban public hospital emergency department, older persons were found to be more likely to delay care than younger persons (25). Acute conditions such as congestive heart failure and pneumonia are more easily treated and may not become life-threatening if detected at an early stage (24). The 1987 National Medical Expenditure Survey (NMES) indicated that individuals with a history of serious medical illness were more likely to report an inability to obtain care (26).

Over 80 percent of the elderly have at least 1 of 9 common chronic conditions (27). Chronic diseases have been shown to increase health service utilization (28). For persons with chronic conditions, having a regular source of care is particularly important for proper management of their
condition. According to the Institute of Medicine report, "on-going medical management can effectively control the severity and progression of a number of chronic diseases" (5). Persons without a regular source of care are less likely to see a physician when they have a serious medical symptom (13) and are more likely to use the emergency department for their basic medical care (29). Shea et al $(30,31)$ found that persons who relied on emergency departments for their management of hypertension were not as likely to be compliant and more likely to have severe, uncontrolled hypertension.

Vaccination rates for the elderly varied by the type of insurance coverage and type of vaccine. Immunization with the pneumococcal and influenza vaccines is recommended for all persons 65 years of age and over (32-34). The influenza vaccine is given annually and the pneumococcal vaccine is given once during a person's lifetime. Vaccination for tetanus is recommended every 10 years following initial vaccination, throughout a lifetime (35).

Significant levels of older adult mortality and morbidity have been associated with influenza and pneumococcal disease (36). In 1993, pneumonia and influenza combined was the fifth leading cause of death for persons 65 years of age and over (37). Overall, almost 83,000 persons succumbed as a consequence of
pneumonia and influenza and elderly persons accounted for 89 percent of these deaths.

In the United States, tetanus is primarily a disease of the elderly who have a lower prevalence of tetanus immunity compared with younger age groups (38). In 1989-90, 117 cases of tetanus were reported from 34 States. However, it has been suggested that only 40 percent of tetanus deaths are actually reported to the Centers for Disease Control and Prevention (39) and that tetanus may be less rare in the United States than previously believed (38). In 1989-90, tetanus had a case-fatality rate of 50 percent among persons 80 years of age and over (40).

In 1993, persons with Medicare and private insurance were more likely to receive flu, pneumonia, and tetanus immunizations. Although Medicare has reimbursed charges for pneumococcal vaccination since $1981(41,42)$ and influenza vaccination since May 1993 (43), vaccination rates remain below the Year 2000 objectives of 60 percent for these two vaccines (44). In 1993, only 28 percent of persons 65 years of age and over had received the pneumococcal vaccination and only 52 percent had received the recommended annual influenza vaccination.

Although the cost of pneumococcal and influenza vaccines are reimbursed under Medicare, other factors may contribute to the differences observed among insurance coverages. Although persons with Medicare and private, Medicare and public, and Medicare only were about equally likely to have a regular source of medical care, persons with Medicare and public coverage and Medicare only were more than twice as likely to have an unmet need than persons with Medicare and private coverage. In addition, elderly persons who do not have Medicare and private coverage may not have as good a rapport with their source of primary medical care and therefore are less likely to receive immunizations. Several studies of adult populations have shown that there is less communication overall provided to low-income patients than to those with higher incomes (45-47). Persons without supplemental insurance to Medicare are more likely to be
minority, female, or of low income (14).
Ives et al (48) found that
participation in health promotion programs offering immunization increased vaccination rates. They also found that physician-based immunization was the best location for provision of this preventive service. Vaccination rates were found to be higher among persons who had multiple visits to their physician and among persons vaccinated during the preceding year (49).

Tetanus vaccination was not reimbursed under Medicare in 1993 $(50,51)$. Therefore, cost may be also be an issue for the differences seen among different types of insurance. Physicians may also play a role in the elderly not receiving the tetanus immunization. Harward (52) felt that tetanus immunization rates may be low because many physicians have not seen a case of tetanus and think it may not require prevention.

These national estimates of access to health care serve as valuable benchmarks; however, they may be underestimates. Some older persons may be reluctant to admit their inability to obtain health services. Nevertheless, these findings present major concerns that need to be addressed and highlight the need for further research. Although the majority of elderly persons have Medicare, which provides a basic level of access to the health care system, there are still gradients in service utilization.

Many other factors, which may enable or impede service utilization, are not measured in this report, but need to be considered. These factors include health beliefs, cultural practices, language barriers, social networks and contacts, and availability of care in the community $(4,10)$. Additional research and continued monitoring in these areas will be needed for policy makers to adequately address the issues in the future.

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Table 1. Percent and standard error of persons 65 years of age and over with a regular source of medical care by age and selected demographic characteristics: United States, 1993

| Selected demographic characteristics | All persons 65 years of age and over | $\begin{aligned} & \text { 65-74 years } \\ & \text { of age } \end{aligned}$ | 75 years of age and over |
| :---: | :---: | :---: | :---: |
|  | Percent and standard error |  |  |
| Total ${ }^{1}$ | 93.9(0.3) | 93.6(0.5) | 94.2(0.6) |
| Sex |  |  |  |
| Male | 93.3(0.5) | 92.7(0.6) | 94.4(0.7) |
| Female | 94.3(0.4) | 94.3(0.5) | 94.2(0.7) |
| Race ${ }^{2}$ |  |  |  |
| White | 93.9(0.4) | 93.8(0.5) | 94.1(0.6) |
| Black | 93.4(1.0) | 92.2(1.3) | 95.3(1.3) |
| Region |  |  |  |
| Northeast | 94.3(0.6) | 94.2(1.1) | 94.4(1.3) |
| Midwest | 93.9(0.6) | 93.9(0.8) | 94.0(1.0) |
| South | 93.9(0.6) | 93.4(0.7) | 94.7(0.9) |
| West | 93.3(1.0) | 93.0(1.1) | 93.7(1.5) |
| Place of residence |  |  |  |
| MSA ${ }^{3}$ | 93.7(0.4) | 93.7(0.5) | 93.8(0.7) |
| Central city | 93.0(0.8) | 92.9(0.9) | 93.1(0.9) |
| Noncentral city | 94.2(0.5) | 94.2(0.6) | 94.2(0.9) |
| Not MSA ${ }^{3}$ | 94.2(0.6) | 93.3(0.9) | 95.6(0.8) |
| Family income |  |  |  |
| Less than \$10,000 | 92.1(0.9) | 88.4(1.5) | 95.2(0.9) |
| \$10,000-\$19,999 | 93.0(0.7) | 92.6(1.0) | 93.6(0.9) |
| \$20,000-\$34,999 | 95.4(0.6) | 95.5(0.8) | 95.3(1.0) |
| \$35,000-\$49,999 | 94.2(1.3) | 95.1(1.1) | 91.7(3.0) |
| \$50,000 or more | 95.7(0.9) | 95.3(1.3) | 96.8(1.3) |
| Race and family income |  |  |  |
| White: |  |  |  |
| Less than \$20,000 | 92.7(0.5) | 91.7(0.8) | 93.7(0.7) |
| \$20,000-\$34,999 | 95.3(0.6) | 95.4(0.8) | 95.1(1.0) |
| \$35,000 or more | 95.2(0.8) | 95.4(0.8) | 94.6(1.9) |
| Black: |  |  |  |
| Less than \$20,000 | 92.5(1.1) | 90.7(1.7) | 95.4(1.3) |
| \$20,000-\$34,999 | 97.1(2.0) | 97.2(2.6) | 97.1(2.9) |
| \$35,000 or more | 93.6(3.5) | 94.0(4.0) | *92.4(7.7) |
| Poverty index |  |  |  |
| At or above poverty threshold | 94.4(0.4) | 94.1(0.5) | 94.8(0.6) |
| Below poverty threshold | 91.8(1.0) | 89.8(1.7) | 93.8(1.4) |
| Insurance coverage |  |  |  |
| Medicare and private | 95.4(0.4) | 95.3(0.4) | 95.5(0.5) |
| Medicare and public | 94.1(1.1) | 94.4(1.7) | 93.7(1.7) |
| Medicare only | 88.0(1.0) | 86.1(1.5) | 90.3(1.4) |
| Other | 91.5(2.3) | 91.0(2.7) | 92.5(4.1) |
| No insurance | 63.1(6.2) | 59.2(7.4) | 70.8(10.1) |
| Health status |  |  |  |
| Excellent, very good, good | 93.2(0.5) | 93.1(0.6) | 93.4(0.7) |
| Fair or poor | 95.6(0.5) | 95.3(0.6) | 95.9(0.8) |

[^0]Table 2. Percent of persons 65 years of age and over with a regular source of medical care by place of regular source of care and selected demographic characteristics: United States, 1993

| Selected demographic characteristics | Place of regular source of care |  |  |
| :---: | :---: | :---: | :---: |
|  | Private doctor ${ }^{1}$ | Clinic | Emergency room |
|  | Percent and standard error |  |  |
| Total ${ }^{2}$ | 91.3(0.5) | 4.3(0.4) | 0.6(0.1) |
| Sex |  |  |  |
| Male | 89.1(0.8) | 4.4(0.5) | 0.6(0.1) |
| Female | 93.0(0.5) | 4.3(0.4) | 0.5(0.1) |
| Age |  |  |  |
| 65-74 years | 90.9(0.6) | 4.2(0.4) | 0.5(0.1) |
| 75 years and over | 92.0(0.7) | 4.5(0.6) | 0.6(0.1) |
| Race ${ }^{3}$ |  |  |  |
| White | 92.8(0.5) | 3.3(0.4) | 0.4(0.1) |
| Black | 77.9(1.9) | 14.4(1.8) | 1.7(0.5) |
| Region |  |  |  |
| Northeast | 91.4(1.0) | 4.9(0.7) | *0.6(0.2) |
| Midwest | 92.2(1.1) | 5.1(1.0) | *0.2(0.1) |
| South | 92.3(0.8) | 3.2(0.6) | 0.8(0.2) |
| West | 88.5(1.2) | 4.7(0.8) | *0.6(0.2) |
| Place of residence |  |  |  |
| MSA ${ }^{4}$ | 90.6(0.6) | 4.8(0.4) | 0.6(0.1) |
| Central city | 86.7(1.1) | 7.2(0.8) | 0.9(0.2) |
| Noncentral city | 93.2(0.6) | 3.2(0.4) | 0.3(0.1) |
| Not MSA ${ }^{4}$ | 93.5(1.1) | 2.9(0.8) | *0.6(0.2) |
| Income |  |  |  |
| Less than \$10,000 | 87.9(1.3) | $6.7(0.9)$ | 1.4(0.4) |
| \$10,000-\$19,999 | 90.7(0.9) | 4.7(0.7) | *0.6(0.2) |
| \$20,000-\$34,999 | 93.0(0.8) | 3.6(0.6) | *0.3(0.2) |
| \$35,000-\$49,999 | 92.2(1.4) | 3.5(0.8) | *0.2(0.2) |
| \$50,000 or more | 92.1(1.4) | 3.4(1.0) | *0.3(0.2) |
| Poverty index |  |  |  |
| At or above poverty threshold | 92.2(0.5) | 3.7(0.4) | 0.4(0.1) |
| Below poverty threshold. | 84.5(1.8) | 9.2(1.4) | *1.4(0.6) |
| Health insurance coverage |  |  |  |
| Medicare and private | 93.7(0.5) | 3.3(0.4) | 0.4(0.1) |
| Medicare and public | 87.7(1.8) | 8.8(1.7) | *1.3(0.7) |
| Medicare only | 87.8(1.3) | 7.3(0.9) | *0.9(0.3) |
| Other | 43.6(4.8) | 9.7(2.7) | *0.9(0.7) |
| No insurance | 82.9(5.7) | *8.3(3.8) | *3.9(2.0) |
| Health status |  |  |  |
| Excellent, very good, good | 92.5(0.5) | 3.6(0.4) | 0.5(0.1) |
| Fair or poor | 88.5(0.9) | $6.1(0.7)$ | 0.8(0.2) |

*Figure does not meet standard of reliability or precision.
${ }^{1}$ Includes health maintenance organizations (HMO's).
${ }^{2}$ Persons of races other than white or black, persons with unknown income, poverty status, health insurance coverage, and health status are included in the total but not shown separately.
${ }^{3}$ Other races are not shown separately. Persons of Hispanic origin are not separated from the white and black race categories.
${ }^{4}$ MSA is metropolitan statistical area.
NOTE: Percent distribution includes other and unknown places of regular source of care but are not shown separately.

Table 3. Percent of persons 65 years of age and over by selected unmet medical needs and selected demographic characteristics: United States, 1993

| Selected demographic characteristics | Any unmet need ${ }^{1}$ | Needed, but not able to get care | Delayed medical care due to cost | Needed dental care | Needed prescription | Needed glasses | Needed mental health care |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent and standard error |  |  |  |  |  |  |
| Total ${ }^{2}$ | 10.6(0.5) | 1.6(0.2) | 4.7(0.3) | 4.4(0.3) | 2.0(0.2) | 3.2(0.3) | *0.2(0.1) |
| Sex |  |  |  |  |  |  |  |
| Male | 8.7(0.6) | 1.4(0.2) | 3.3(0.4) | 3.7 (0.4) | 1.6(0.3) | 2.5(0.3) | *0.2(0.1) |
| Female | 12.0(0.6) | 1.8(0.3) | 5.6(0.4) | 4.9(0.3) | 2.3(0.2) | 3.7(0.3) | *0.2(0.1) |
| Age |  |  |  |  |  |  |  |
| 65-74 years | 11.4(0.6) | 1.6(0.2) | 5.3(0.4) | 5.0(0.4) | 2.1(0.3) | 3.5(0.3) | *0.2(0.1) |
| 75 years and over | 9.3(0.7) | 1.7(0.2) | 3.8(0.4) | 3.6(0.4) | 1.9(0.3) | 2.6(0.4) | *0.2(0.1) |
| Race ${ }^{3}$ |  |  |  |  |  |  |  |
| White | 9.9(0.5) | 1.6(0.2) | 4.6(0.3) | 4.2(0.3) | 1.7(0.2) | 2.6(0.3) | *0.2(0.1) |
| Black | 18.4(1.9) | *1.7(0.6) | 4.8(1.0) | 7.5(1.1) | 4.8(0.8) | 9.0(1.2) | *- |
| Region |  |  |  |  |  |  |  |
| Northeast | 7.5(0.7) | 0.9(0.3) | 3.3(0.5) | 2.9(0.5) | 1.2(0.3) | 2.0(0.4) | *0.1(0.1) |
| Midwest | 9.4(1.0) | 1.7(0.4) | 4.8(0.6) | 3.6(0.5) | 1.4(0.3) | 2.4(0.4) | *0.1(0.1) |
| South | 14.1(1.0) | 2.3(0.4) | 5.8(0.6) | 5.8(0.6) | 3.3(0.5) | 4.9(0.6) | *0.4(0.2) |
| West | 9.5(1.0) | 1.2(0.3) | 4.1(0.7) | 4.9(0.7) | *1.4(0.4) | 2.4(0.4) | *0.2(0.2) |
| Place of residence |  |  |  |  |  |  |  |
| MSA ${ }^{4}$ | 10.3(0.6) | 1.5(0.2) | 4.4(0.4) | 4.4(0.3) | 1.8(0.2) | 2.9(0.3) | *0.2(0.1) |
| Central city | 11.0(0.9) | 1.4(0.3) | 4.6(0.5) | $5.1(0.6)$ | 2.1 (0.3) | 3.2(0.5) | *0.3(0.1) |
| Noncentral city | 9.8(0.7) | 1.6(0.3) | 4.2(0.4) | 4.0(0.4) | 1.5(0.3) | 2.7(0.4) | *0.1(0.1) |
| Not MSA ${ }^{4}$ | 11.5(0.8) | 2.0(0.4) | 5.5(0.6) | 4.4(0.5) | 2.7(0.5) | 3.9(0.6) | *0.4(0.2) |
| Family income |  |  |  |  |  |  |  |
| Less than \$10,000 | 24.9(1.7) | 3.7(0.7) | 10.9(1.2) | 10.6(1.0) | 7.9(1.1) | 9.4(1.1) | *0.7(0.3) |
| \$10,000-\$19,999 | 13.3(1.0) | 2.1(0.4) | 5.9(0.7) | 5.3(0.6) | 2.1 (0.3) | 3.6(0.5) | *0.1(0.1) |
| \$20,000-\$34,999 | 6.0(0.7) | *0.8(0.2) | 2.7(0.4) | 2.6(0.4) | *0.4(0.2) | 1.5(0.4) | *0.1(0.1) |
| \$35,000-\$49,999 | 3.0(0.7) | *0.8(0.4) | *1.0(0.4) | *1.0(0.4) | *0.2(0.2) | *0.9(0.4) | *- |
| \$50,000 or more | 3.8(0.8) | *1.1(0.5) | *1.2(0.4) | *1.4(0.5) | *0.1(0.1) | *0.5(0.3) | *0.2(0.2) |
| Poverty index |  |  |  |  |  |  |  |
| At or above poverty threshold | 8.8(0.5) | 1.3(0.2) | 3.9(0.3) | 3.7(0.3) | 1.4(0.2) | 2.3(0.2) | *0.2(0.1) |
| Below poverty threshold | 27.2(2.3) | 4.3(0.9) | 10.8(1.6) | 10.9(1.4) | 8.6(1.4) | 11.5(1.6) | *0.7(0.3) |
| Health insurance coverage |  |  |  |  |  |  |  |
| Medicare and private | 8.1(0.5) | 1.2(0.2) | 3.6(0.3) | 3.3(0.3) | 1.3(0.2) | 2.0(0.3) | *0.2(0.1) |
| Medicare and public | 19.7(2.6) | *2.2(0.9) | 6.1(1.3) | 8.3(1.6) | 5.3(1.4) | 7.0(1.3) | *0.8(0.5) |
| Medicare only | 17.9(1.4) | 3.1(0.6) | 8.7(0.9) | 7.5(1.0) | 4.4(0.7) | 7.6(0.9) | *0.3(0.2) |
| Other | 21.0(3.0) | *3.8(1.5) | *7.2(2.2) | 12.1(2.7) | *3.5(1.6) | 6.9(2.0) | *0.7(0.6) |
| No insurance | 31.5(6.0) | *3.1(2.1) | 18.0(4.0) | *14.1(4.6) | *2.9(1.9) | *3.3(2.3) | *- |
| Health status |  |  |  |  |  |  |  |
| Excellent, very good, good | 7.7(0.5) | 1.0(0.2) | 3.4(0.3) | 3.2(0.3) | 1.2(0.2) | 2.1(0.2) | *0.1(0.0) |
| Fair or poor . . . . . . | 18.0(1.1) | 3.2(0.5) | 7.9(0.7) | 7.6(0.7) | 4.3(0.5) | 6.0(0.6) | *0.6(0.2) |

*Figure does not meet standard of reliability or precision.
*- Figure does not meet standard of reliability or precision and quantity zero.
${ }^{1}$ Respondents who answered "yes" to any of the following questions were classified as having an unmet need: needed medical care or surgery, but did not get it; delayed medical care because of the cost; needed dental care, prescription medicine, eyeglasses, or mental health services, but could not get it.
${ }^{2}$ Persons of races other than white or black, persons with unknown income, poverty status, health insurance coverage, and health status are included in the total but not shown separately.
${ }^{3}$ Other races are not shown separately. Persons of Hispanic origin are not separated from the white and black race categories.
${ }^{4} \mathrm{MSA}$ is metropolitan statistical area.

Table 4. Percent of persons 65 years of age and over by selected clinical and preventive services received and type of insurance: United States, 1993

|  | Medicare | Medicare <br> and public <br> insurance private |
| :---: | :---: | :---: |
| Clinical and preventive services | insurance | Medicare <br> only |


| Number of months since blood pressure check |  | Percent and standard error |  |
| :---: | :---: | :---: | :---: |
| 3 months or less | 66.9(1.1) | 73.3(4.7) | 60.8(2.2) |
| 4-6 months | 14.1(0.8) | *8.2(2.5) | 10.0(1.5) |
| 7-12 months | 4.4(0.4) | *2.7(1.6) | 2.1 (0.6) |
| 1-2 years | 7.1 (0.5) | *2.7(1.3) | 9.1(1.5) |
| 2-5 years | 3.3(0.3) | *3.3(1.3) | 7.7(1.2) |
| Over 5 years | 1.4(0.2) | *2.6(1.0) | 3.4(0.8) |
| Never | *0.1(0.1) | *- | *0.3(0.3) |


|  | Less than a year ago |
| :---: | :---: |
|  | 1 year to less than 2 years |
|  | 2 years to less than 5 years |
|  | 5 or more years |
|  | Never |


| Less than a year ago | 73.2(1.1) |
| :---: | :---: |
| 1 year to less than 2 years | 12.6(0.7) |
| 2 years to less than 3 years | 4.0(0.4) |
| 3 years to less than 4 years | $1.4(0.3)$ |
| 4 or more years | 5.2(0.5) |

At last routine physical had the following
procedures performed

| Blood pressure checked | 96.6(0.4) | 92.8(2.2) | 93.3(1.0) |
| :---: | :---: | :---: | :---: |
| Cholesterol checked | 64.1(1.1) | 57.2(4.3) | 44.1(2.4) |
| Vision checked | 23.1(1.1) | 21.0(2.6) | 33.1(2.2) |
| Hearing checked | 18.4(0.9) | 22.0(3.7) | 26.1(2.0) |
| Urine test | 63.4(1.2) | 55.7(3.7) | 55.0(2.4) |
| Blood test | 48.0(1.3) | 36.6(3.6) | 40.1(2.6) |
| Stool test | 35.8(1.1) | 30.2(4.0) | 25.8(2.1) |
| Immunizations |  |  |  |
| Flu shot in past 12 months | 54.9(0.9) | 33.2(3.2) | 38.9(2.1) |
| Ever had pneumonia vaccination | 29.1(0.9) | 17.8(3.1) | 19.0(1.7) |
| Tetanus shot in past 10 years | 33.4(0.9) | 19.9(3.7) | 26.3(2.2) |
| Length of time since last Pap smear |  |  |  |
| Never | 5.5(0.5) | *12.1(2.9) | 14.8(2.2) |
| Within past year | 33.0(1.3) | 21.7(2.9) | 20.6(2.3) |
| 1-3 years | 25.7(1.2) | *25.2(4.8) | 16.8(2.2) |
| Over 3 years | 32.7(1.2) | 31.2(5.4) | 37.7(3.3) |
| Length of time since last mammogram |  |  |  |
| Never | 24.2(1.1) | *42.9(8.4) | 41.5(3.0) |
| Within past year | 41.4(1.4) | 25.7(4.2) | 22.4(2.5) |
| 1-3 years | 16.4(0.9) | *6.6(2.1) | 10.3(1.7) |
| Over 3 years | 16.1(0.9) | 14.6(3.7) | 20.2(2.6) |
| Length of time since last breast physical |  |  |  |
| Never | 8.3(0.7) | 8.9(2.6) | 18.1(2.3) |
| Within past year | 50.7(1.4) | *53.0(8.5) | 33.2(3.0) |
| 1-3 years | 16.6(0.9) | *7.7(2.8) | 11.4(1.8) |
| Over 3 years | 20.8(1.0) | 18.7(4.4) | 28.6(2.6) |

*Figure does not meet standard of reliability or precision.
*- Figure does not meet standard of reliability and quantity zero.
NOTE: Persons with nonresponse to a clinical and preventive services question are not shown on this table.

## Appendix I

## Sources and Limitations of Data

## Description of Survey

The estimates presented in this report are based on data from the 1993 Access to Care and the 1993 Health Insurance surveys, and the 1993 Year 2000 objectives questionnaires of the National Health Interview Survey (NHIS). The NHIS, an ongoing survey of households in the United States, is conducted by the National Center for Health Statistics. Each week a probability sample of the civilian noninstitutionalized population of the United States is interviewed by personnel of the U.S. Bureau of the Census. Interviewers obtain information about the health and other characteristics of each member of the households included in the NHIS sample.

## Response Rates

The interviewed sample for the 1993 NHIS basic health questionnaire during the third and fourth quarters of the year (July-December) consisted of 24,071 households containing 61,287 persons. The household response rate for the third and fourth quarters was 94.7 percent.

The data for this report were produced from two sets of merged files. The first merged file consisted of the access to care and health insurance topics. The response rate for this merged file was 93.3 percent, the proportion of persons who completed both the access to care and health insurance sections. When the household response rate was multiplied by the merged file response rate, it resulted in an overall response rate of 88.4 percent.

The second merged file consisted of the Year 2000 objectives and the health insurance topics. The response rate for the Year 2000 objectives section was 85.7 percent, the response rate for the health insurance section was 93.3 percent, and the response rate for the merged health insurance and Year 2000 file was 80.0 percent. When the household response rate (94.7) was

Table I. Percent of persons 65 years of age and over with unknown insurance coverage, unknown regular source of medical care, and unknown unmet medical need by selected demographic characteristics: United States, 1993

| Selected demographic characteristics | Unknown insurance coverage | Unknown regular source of medical care | Unknown unmet medical need |
| :---: | :---: | :---: | :---: |
| Total | 5.9 | 6.0 | 6.9 |
| Sex |  |  |  |
| Male | 6.1 | 6.1 | 6.9 |
| Female | 5.8 | 6.0 | 6.8 |
| Age |  |  |  |
| 65-74 years | 5.5 | 5.5 | 6.3 |
| 75 years and over | 6.4 | 6.7 | 7.7 |
| Race |  |  |  |
| White | 5.8 | 5.9 | 6.7 |
| Black | 6.7 | 6.5 | 9.0 |
| All others | 7.8 | 7.8 | 8.0 |
| Region |  |  |  |
| Northeast | 7.3 | 7.6 | 7.9 |
| Midwest | 3.9 | 4.2 | 4.8 |
| South | 6.8 | 6.7 | 8.3 |
| West | 5.2 | 5.3 | 6.0 |
| Place of residence |  |  |  |
| MSA ${ }^{1}$ | 6.4 | 6.5 | 7.1 |
| Central city | 7.3 | 7.3 | 8.1 |
| Noncentral city | 5.8 | 5.9 | 6.3 |
| Not MSA ${ }^{1}$. | 4.4 | 4.7 | 6.3 |
| Family income |  |  |  |
| Less than \$10,000 | 2.7 | 3.3 | 4.0 |
| \$10,000-\$19,999 | 2.6 | 2.8 | 3.7 |
| \$20,000-\$34,999 | 2.6 | 2.6 | 3.0 |
| \$35,000-\$49,999 | 2.5 | 2.5 | 2.5 |
| \$50,000 or more | 3.8 | 4.3 | 4.6 |
| Unknown income | 15.9 | 15.7 | 17.6 |
| Race and family income |  |  |  |
| White: |  |  |  |
| Less than \$20,000 | 4.5 | 4.9 | 5.9 |
| \$20,000-\$34,999 | 2.7 | 2.7 | 3.1 |
| \$35,000 or more | 3.0 | 3.3 | 3.4 |
| Unknown income | 18.9 | 18.5 | 19.4 |
| Black: |  |  |  |
| Less than \$20,000 | 6.5 | 6.4 | 9.6 |
| \$20,000-\$34,999 | - | - | - |
| \$35,000 or more | 8.4 | 8.4 | 8.4 |
| Unknown income | 18.5 | 17.4 | 19.8 |
| Insurance coverage |  |  |  |
| Medicare and private | ... | 0.4 | 1.0 |
| Medicare and public | . . . | 0.0 | 1.0 |
| Medicare only | $\ldots$ | 0.7 | 2.8 |
| Other . | ... | 0.5 | 0.6 |
| Uninsured | ... | 3.1 | 3.1 |
| Unknown | $\ldots$ | 95.2 | 96.6 |
| Regular source of medical care |  |  |  |
| Has regular source | 0.3 | . | 1.2 |
| Does not have regular source | 0.5 | $\ldots$ | 2.3 |
| Unknown regular source | 93.3 | $\ldots$ | 93.9 |
| Unmet medical need |  |  |  |
| Has unmet need | 0.3 | 0.1 | ... |
| Does not have unmet need | 0.2 | 0.4 | . . |
| Unknown unmet need | 82.8 | 82.1 | . . |

Table I. Percent of persons 65 years of age and over with unknown insurance coverage, unknown regular source of medical care, and unknown medical unmet need by selected demographic characteristics: United States, 1993-Con.

| Selected demographic characteristics | Unknown insurance coverage | Unknown regular source of medical care | Unknown unmet medical need |
| :---: | :---: | :---: | :---: |
| Poverty index |  |  |  |
| At or above poverty threshold | 3.3 | 3.4 | 4.0 |
| Below poverty threshold | 4.1 | 4.9 | 5.6 |
| Unknown | 19.4 | 19.3 | 21.8 |
| Health status |  |  |  |
| Excellent, very good, good | 5.3 | 5.5 | 6.1 |
| Fair or poor | 7.0 | 7.1 | 8.5 |
| Unknown health status | 25.5 | 26.2 | 25.5 |

Category not applicable.

- Quantity zero.
${ }^{1} \mathrm{MSA}$ is metropolitan statistical area.
multiplied by the merged file rate ( 80.0 percent), it resulted in an overall response rate of 75.8 percent.


## Sampling Design and Reliability of Estimates

The NHIS sample is selected so that a national probability sample of households is interviewed each week throughout the year. A detailed discussion of the sample design is available in Current Estimates from the National Health Interview Survey, 1993 (22).

The population estimates for 1993 are inflated to national population controls by age, race, and sex. The population controls are based on the 1980 census and are carried forward to 1993. Therefore, the estimates in this report may differ from 1990 census results brought forward to the survey date. Population controls incorporating census results will be used for survey estimation in later survey years.

## Appendix II

## Definition of Terms

## Health Insurance Terms

A health insurance hierarchy of six mutually exclusive categories was developed for this report. (In previous NHIS reports health insurance was not classified in this way, which may have caused some double counting of individuals.) Persons were classified into
health insurance categories based on six questions about type of coverage (private, Medicaid, Medicare, military, Indian Health Service, and other public assistance). A person with more than one type of health insurance, such as private and military coverage, was assigned to the first appropriate category in the hierarchy listed below:

Medicare and private coverageIncludes persons who have both Medicare and any comprehensive private insurance plan (includes health maintenance organizations and preferred provider organizations) or persons who have a hospitalization plan only. This category also includes persons with private insurance only.
Medicare and public coverageIncludes persons who do not have any private coverage, but have both Medicare and public coverage (Medicaid and/or other public assistance programs including various State plans).

Medicare only -Includes persons who do not have Medicare and private or Medicare and public coverage, but only have Medicare coverage.

Other coverage-Includes persons who do not have Medicare and private, Medicare and public, or Medicare only coverage, but have both Medicare and any type of military coverage (includes CHAMPUS, CHAMP-VA or other military medical insurance), or

Indian Health Service. This category also includes persons who are on public coverage only, military coverage only, or Indian Health Service coverage only.

Uninsured-Includes persons who responded "no" to all six of the insurance questions. Those who responded "no" to four or five questions and responded "don't know" to the remaining questions were also classified as uninsured. Persons with a single service plan only (for example, a dental plan) other than a hospitalization plan, were also classified as uninsured.

Unknown-Includes any remaining respondents. The elderly whose insurance status is unknown ( 5.9 percent) are included in the totals, but are not shown in detail in this report.

## Demographic and Health Status Terms

Metropolitan statistical area (MSA)-The definition and titles of MSA's are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Metropolitan Statistical Areas. The metropolitan population in this report is based on MSA's as defined in the 1980 census and does not include any subsequent additions or changes.

Family income-Each family member is classified according to the total family income. The income recorded is the sum of all income received by household members related to each other by blood, adoption, or marriage in the 12 -month period preceding the week of interview. Income from all sources (for example, wages, salaries, rents from property, pensions, government payments, and help from relatives) is included. Unrelated individuals are classified according to their own incomes.

Health status-The categories related to this concept result from asking the respondent, "Would you say ___'s health is excellent, very good, good, fair, or poor?" It is based on a respondent's opinion and not directly on any clinical evidence.

## Appendix III

## Questionnaire Items and Flash

## Cards

| Section AC - ACCESS TO CARE |  |  | RT 70 |
| :---: | :---: | :---: | :---: |
|  |  |  | PERSON 1 |
| (The next questions are about medical care.\} <br> 1a. Is there a particular person or place that - USUALLY goes to when - - is sick or needs advice about - - health? |  | 1 a. <br> b. |  |
| HAND CARD FR1. Read categories if telephone interview. <br> 2. Which of these is the MAIN reason-- does not have a usual source of medical care? Mark (X) only one. |  | 2. |  |
| $\begin{aligned} & \text { ITEM } \\ & \text { AC1 } \end{aligned}$ | Refer to question 1a above. | $\begin{gathered} \mathrm{AC} \\ 1 \end{gathered}$ | $\square$ "No" in 1a (3) <br> $2 \square$ "There is more than one" in 1a ( $A C 2$ ) |
| 3. Is there ONE of those places that -- goes to MOST OFTEN when - - is sick or needs advice about - health? |  | 3. |  |
| $\begin{gathered} \text { ITEM } \\ \text { AC2 } \end{gathered}$ | Refer to age. | $\begin{gathered} \mathbf{A C} \\ 2 \end{gathered}$ |  |
| Notes |  |  |  |


| Section AC - ACCESS TO CARE - Continued |  | PERSON 1 |
| :---: | :---: | :---: |
| 4a. At ANY time in the past 12 months DID - have a place that - - went to for medical care? | 4a. | Yes (4b) <br> $2 \square$ No (1a for NP, or <br> ${ }_{9} \square \mathrm{DK} \int 14$ on page 14 ) |
| b. What kind of place was it - a clinic, a health center, a hospital, a doctor's office, or some other place? | b. |  |
| c. If -- needed medical care NOW, would -- go to that (place in 4b)? | c. | $1 \square$ Yes (13 on page 14) <br> ${ }_{2} \square$ No (4d) <br> 9 DK (13 on page 14 ) |
| HAND CARD FR2. Read categories if telephone interview. <br> d. What is the MAIN reason - would not use that place for medical care NOW? | d. |  |
| Notes |  |  |


| Section AC - ACCESS TO CARE - Continued |  |  | PERSON 1 |
| :---: | :---: | :---: | :---: |
| 5a. What kind of place is it - a clinic, a health center, a hospital, a doctor's office, or some other place? |  | 5 a. |  |
| b. Is the | articular person - - usually sees when - - goes there? | b. | $\left.\begin{array}{l} 1 \square \mathrm{Yes}(6) \\ 2 \square \mathrm{No} \\ 9 \square \mathrm{DK} \end{array}\right\}(\mathrm{AC3})$ |
| $\begin{aligned} & \text { ITEM } \\ & \text { AC3 } \end{aligned}$ | Refer to age. | $\begin{gathered} A C \\ 3 \end{gathered}$ |  |
| 6a. Is that person a doctor or nurse or some other health professional? Probe for type of health professional. <br> b. Is this doctor a general practitioner or family doctor who treats a variety of illnesses and gives preventive care or is he or she a specialist who mainly treats just one type of health problem? |  | 6a. |  |
| $\begin{aligned} & \text { ITEM } \\ & \text { AC4 } \end{aligned}$ | Refer to age. | AC | $\square$ Under age 18 (7) 18 or older (13 on page 14) |
| 7. When was the last time - - went to the (place in 5a) for ANY kind of medical care? (This is the (place in 5a) that - - usually goes to for medical care.) |  | 7. |  |


|  | Section AC - ACCESS TO CARE - Continued |  | PERSON 1 |
| :---: | :---: | :---: | :---: |
| 8. Thinking about the last time -- visited the (place in 5a), were you satisfied with - <br> a. The waiting time to get an appointment? |  | 8. a. |   26 <br> $1 \square \mathrm{Yes}$   <br> $2 \square \mathrm{No}$   <br> $9 \square \mathrm{DK}$   |
| b. The waiting time to see the doctor? |  |  |  |
| c. The way your questions were answered? |  | c. |  |
| d. Your ability to get all the care you thought-- needed? |  | d. |  |
| e. The overall care-- received? |  | e. |  |
| $\begin{aligned} & \text { ITEM } \\ & \text { AC5 } \end{aligned}$ | Refer to 56. | $\begin{gathered} A C \\ 5 \end{gathered}$ |  |
| 9a. Is the (person in 6a) the person - usually sees when - - needs routine or preventive medical care? (This is the (person in 6a) that -- usually goes to for medical care.) |  |  |  |
| b. Is the (place in 5a) the place - - usually goes to when - - needs routine or preventive medical care? (This is the (place in $5 a$ ) that -- usually goes to for medical care.) |  | b. | $\left\{\begin{array}{l} 1 \square \text { Yes (11) } \\ 2 \square \mathrm{No}(12 \text { on page 14) } \\ 9 \square \mathrm{DK} \text { (13 on page 14) } \end{array}\right.$ |
| 10. Is that (person in 6a)- <br> a. Able to provide for most of -- needs when - - is sick? |  | 10. <br> a. | $1 \square \mathrm{Yes}$ 34 <br> $2 \square \mathrm{No}$  <br> $9 \square \mathrm{DK}$  <br>   |
| b. Able to make referrals to other health professionals when needed by-- |  |  |  |
| c. Able to provide care or arrange care for-- |  |  | $----------\square \overline{36}-1$ $1 \square \mathrm{Yes}$ $2 \square \mathrm{No}$ $9 \square \mathrm{DK}$ |
| d. Able to provide advice about family concerns, such as stress? |  |  | $\left\{\begin{array}{l} 1 \square \mathrm{Yes} \\ 2 \square \mathrm{No} \\ 9 \square \mathrm{DK} \end{array}\right\} \text { (13 on page } 14 \text { ) }$ |
| 11. Is the (place in 5a) - <br> a. Able to provide for most of -- needs when - - is sick? |  | 11. |  |
| b. Able to make referrals to other health professionals when needed by-- |  | b. |  |
| c. Able to provide care or arrange care for--on evenings or weekends when--is sick |  | c. | $-------\quad \overline{40}$ $1 \square \mathrm{Yes}$ $2 \square \mathrm{No}$ $9 \square \mathrm{DK}$ |
| d. Āble | provide advice about family concerns, such as stress? | d. |  |


| Section AC - ACCESS TO CARE - Continued |  | PERSON 1 |
| :---: | :---: | :---: |
| 12. Is there a particular person or place that - USUALLY goes to when - - has a minor health problem or needs routine or preventive medical care? | 12. |  |
| 13. During the past 3 months, how many times did - - see ANY doctor or other health professional? | 13. |  |
| 14a. At any time in the past 12 months did anyone in the family CHANGE the place to which he or she USUALLY goes for routine medical care? <br> b. Who is this? <br> Mark ( $X$ ) "Changed usual source" box in person's column. <br> c. Anyone else? Yes (Reask $14 b$ and $c$ ) <br> $\overline{H A N D} \overline{C A} \bar{R} \bar{D} F \bar{R} 2$. Read categories if $\overline{\text { if }} \overline{\text { telephone }} \overline{\text { interview. }}$ No <br> Ask for each person marked in 14b. <br> d. The LAST time this happened, what was the MAIN reason - - changed - - USUAL source of care? <br> Mark (X) only one. | 14a. <br> b. - - <br> d. |  |
| Notes |  |  |





Notes






|  |  | RT 85 |
| :---: | :---: | :---: |
| Section FB - PRIVATE PLAN AND COVERAGE DETAIL - Continued |  | PERSON 1 |
| HAND CARD FR4. Read each category if telephone interview. If "Not covered 65 and over," include "or Medicare". <br> 12a. Many people do not have health insurance for various reasons. Which of these statements describes why - - is not covered by any health insurance (or Medicare)? <br> Anything else? <br> Mark (X) all that apply. | 12a. |  |
| Ask if more than one box is marked in 12a, otherwise transcribe number of box marked without asking. <br> b. What is the MAIN reason -- was not covered in (month) by any health insurance (or Medicare)? <br> Record number from Card FR4. <br> c. When was the LAST time - - had health insurance? | b. |  |
| HAND CARD FR5. Read categories if telephone interview. <br> d. What was the MAIN reason - - stopped being covered by health insurance? <br> Mark ( $X$ ) only one. |  | 01 $\square$ Lost job or changed <br> employers <br> $02 \square$ Spouse/parent lost job or <br> changed employers <br> $03 \square$ Death of spouse or parent <br> $04 \square$ Became divorced or <br> separated <br> $05 \square$ Became ineligible <br> because of age <br> $06 \square$ Employer stopped <br> offering coverage <br> $07 \square$ Cut back to part time <br> $08 \square$Benefits from employer/ <br> former employer ran out <br> $98 \square$ Other - Specify <br>  <br> DK |
| e. At the time that --stopped being covered by health insurance, did - - try to find some other type of health insurance? | e. | 1 YYes (12f) <br> $\left.\begin{array}{l}\text { 2■No } \\ \text { 9 } \square \mathrm{DK}\end{array}\right\}$ (FB3 for NP) |
| f. What was the MAIN reason -- was unable to find some other type of health insurance? | f. |  |


| Section FB - PRIVATE PLAN AND COVERAGE DETAIL - Continued |  |  | PERSON 1 |
| :---: | :---: | :---: | :---: |
| 13a. In th or <br> b. In ho $\bar{H} A \bar{N}$ <br> c. What | past 12 months, was there any time that -- did NOT have ANY health insurance age? <br> many of the past 12 months was - - without coverage? <br> $\overline{R D} \overline{F R 5}$. Read each category if telephone interview. <br> as the MAIN reason - was without coverage? | 13a. |  |
|  | ARD FR6. Read each category if telephone interview. <br> the past 12 months, about how much did [you/your family] spend for medical NOT include the cost of over-the-counter remedies, the cost of health e premiums, or any costs for which you expect to be reimbursed. | 14. |  46 <br> $1 \square$ Zero 46 <br> $2 \square$ Less than $\$ 500$  <br> $3 \square \$ 500-\$ 1999$  <br> $4 \square \$ 2,000-\$ 2,999$  <br> $5 \square \$ 3,000-\$ 4,999$  <br> $6 \square \$ 5,000$ or more  <br> $9 \square \mathrm{DK}$  |
| $\begin{aligned} & \text { ITEM } \\ & \text { FB4 } \end{aligned}$ | About how often did the Respondent appear to answer the questions in Sections FA and FB accurately? | $\begin{array}{\|c} \text { FB } \\ 4 \end{array}$ | 1 $\square$ All the time <br> 2口 Most of the time <br> ${ }_{3} \square$ Some of the time <br> ${ }^{4} \square$ Rarely or never <br> $9 \square$ <br> DK |
| $\begin{gathered} \text { ITEM } \\ \text { FB5 } \end{gathered}$ | About how often did the Respondent appear to answer the questions in Sections FA and FB honestly? | $\begin{gathered} \text { FB } \\ 5 \end{gathered}$ | 1 $\square$ All the time $2 \square$ Most of the time 3 $3 \square$ Some of the time $4 \square$ Rarely or never $9 \square$ DK |
| $\begin{aligned} & \text { ITEM } \\ & \text { FB6 } \end{aligned}$ | Enter the person number of the Respondent. If more than one, enter the person number of the one who answered the most questions in Sections FA and FB. | $\begin{array}{\|c} \text { FB } \\ 6 \end{array}$ |  |
| Notes |  |  |  |



## YG - CLINICAL AND PREVENTIVE SERVICES - Continued



## Notes

## CARD FR1

1. Two or more usual doctors/places
2. Doesn't need a doctor
3. Doesn't like/trust/believe in doctors
4. Doesn't know where to go
5. Previous doctor is not available/moved
6. No insurance/Can't afford it
7. Speak a different language
8. No care available/Care too far away, not convenient
9. Other (Specify)

## MEDICARE



## CARD FR2

1. Changed residence/moved
2. Changed jobs
3. Employer changed insurance coverage
4. Former usual source left area
5. Owed money to former usual source
6. Dissatisfied with former source/liked new source better
7. Medical care needs changed
8. Former usual source stopped taking insurance/coverage
9. Other (Specify)


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Data Dissemination Branch
National Center for Health Statistics
Centers for Disease Control and Prevention
6525 Belcrest Road, Room 1064
Hyattsville, MD 20782
(301) 436-8500

E-mail: nchsquery@cdc.gov
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[^0]:    *Figure does not meet standard of reliability or precision.
     shown separately.
    ${ }^{2}$ Other races are not shown separately. Persons of Hispanic origin are not separated from the white and black race categories.
    ${ }^{3}$ MSA is metropolitan statistical area.
    NOTE: Persons with unknown regular source of care were excluded from the analysis

