

## THE NATIONAL HEALTH INTERVIEW SURVEY: AN OVERVIEW

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The National Center for Health Statistics (NCHS) currently conducts a large number of data collection activities in an attempt to obtain the comprehensive information required to monitor the Nation's health and medical care system. One of the earliest national survey activities initiated by the Public Health Service and later included as part of NCHS, the Health Interview Survey (HIS), was inaugurated in July 1957 and has been in operation continuously to the present time. It was conceived as a data gathering system designed to obtain information essential to researchers, policy planners and decision makers who were attempting to steer one of the fastest growing major industries in the United States, the Health Care System. The goal of the survey was to measure the incidence and prevalence of disease and its impact on individuals and the nation and determine the use and availability of the Health Care System in meeting the health problems of the people. As the survey has been in operation for over 20 years its goals have become more diffuse in some respects and more limited in other ways. In this paper I will point out how the survey has responded to data needs by the inclusion of a wide range of supplementary topics.

The HIS consists of a continuous sampling and interviewing of the civilian, noninstitutionalized population of the United States through the use of a multistage probability design. The sample is designed in such a way that the households interviewed each week is representative of the target population and that weekly samples are additive over time. This feature of the design permits both continuous measurement of characteristics of samples and more detailed analysis of less common characteristics and smaller categories of health-related items. The continuous collection has administrative and operational advantages as well as technical assets since it permits fieldwork to be handled with an experienced, stable staff. It also controls for seasonal factors since items which vary with time of year are gathered continually over a twelve-month period.

### Concepts Used in the Health Interview Survey

From information gathered in interviews, an attempt is made to describe the social, demographic, and economic aspects of illness, disability, and the use of medical services. Since interview data measure these health items in terms of the impact they have on the lives of individuals rather than in terms of medical criteria, the concepts of morbidity, disability, and the use of services differ basically from those used in scientific and medical studies.

**Morbidity.**—Morbidity is considered as a departure from a state of physical or mental well-being, resulting from disease or injury, of which the affected individual is aware. Awareness connotes a degree of measurable impact on the individual or his family in terms of the

restrictions and disabilities caused by the morbidity. Morbidity includes not only active or progressive disease but also impairments, that is, chronic or permanent defects that are static in nature, resulting from disease, injury, or congenital malformation. The existence of morbidity in an individual caused by a particular disease, injury, or impairment is called a "morbidity condition," or simply a "condition."

During the course of this condition, there may be one or more periods when the affected individual considers himself to be "sick" or "injured." These periods are spoken of as episodes of illness. The period or periods of illness may coincide with the period during which the condition exists, or they may cover only a part of that period. A condition may involve no illness, in the usual sense of the word. Hence, illness is only one form of evidence of the existence of a morbidity condition. Other evidence might be a decrease in, or complete loss of, ability to perform various functions, particularly those of the musculoskeletal system or the sense organs; or a change in the appearance of the body, such as a rash or lump, believed to be abnormal by the person affected.

For the purposes of this survey, the concept of a morbidity condition is usually further limited by specifying that it includes only conditions as a result of which the person has taken one or more various actions. Such actions might be the restricting of usual activities, bed disability, work loss, the seeking of medical advice, or the taking of medicines.

The start, or onset, of the condition is conceived to be the time when the person first becomes aware of it. If there is an illness associated with the condition, the start, or onset, is usually the time when the illness begins or the injury occurs. In many instances, it may be the time when a physician tells the person that he has a condition of which he was previously unaware.

In the statement of this concept, there has been reference to the individual's awareness of his condition and to the individual's actions as a result of the condition. Obviously, in the case of children, the statement must be modified. It is not always the child's awareness or the child's action that establishes the existence of a morbidity condition. Instead, it is the awareness and action of the people responsible for the care of the child, usually the parents. A similar modification applies to adults who are not competent to care for themselves.

**Disability.**—The term "disability" has several common uses. For example, a "disability" often means a condition that interferes with ability to work. Also, conditions are frequently classified as producing temporary partial, temporary total "disability." In this sense, the various degrees of "disability" have some legal or official definition that is related to compensation.

There is also the term "disabling," which has been used in illness surveys for many years to describe a condition that prevents the individual from carrying on his usual activities for one or more days. It has been observed that speaking of a "disabling condition," as the term has been used in surveys, meant to some people no less than severe chronic disability, despite the fact that the range of conditions covered might include such minor disability as the case of the common cold that laid the person up for a day or two.

Because the other uses had gained such wide acceptance in certain fields, it was decided not to employ the term "disability" in this survey except in a very general sense where it is intended to cover the whole field of interference with activities caused by disease, injury, or impairment (in much the same way that the term "morbidity" is used for a generic rather than a specific concept) and also where other words used with it make clear the desired meaning, as in "bed disability." For other specific indexes of disability, new terms that are more descriptive of the concepts of the survey have been and will be introduced. Furthermore, it was decided that the Health Interview Survey needed not one, but several different, specifically defined indexes of disability to serve different purposes.

The disability terms used in this survey may be grouped into the following three categories: (1) terms describing the individual's status during a specified day, or number of days, which are equally applicable to acute conditions or chronic conditions, to all members of the population, and to any day of the week, for example, restricted-activity day and bed-disability day; (2) terms describing the individual's status during a specified day, or number of days, which apply to both acute and chronic conditions but only to certain members of the population on days when they would have been working at a job or business, or going to school, if it had not been for their condition, for example, work-loss day and school-loss day; and (3) terms applying only to chronic conditions, or persons with one or more chronic conditions, which describe their usual status "at the present time," meaning in this case during recent months, for example, "chronic activity limitation" and "chronic mobility limitation." Since these terms were devised for use in this survey and have special meanings, it is especially important that the user of statistics from the survey become familiar with the concepts that the terms represent.

Medical services and facilities.--The personal interview can be used as a medium for determining how illnesses, injuries, and impairments affect people--the restrictions and disabilities they suffer and the medical care they receive. This latter term may be broadly interpreted to encompass the concept of utilization of medical services and facilities. It might be so broadly defined as to include everything that people use to care for their well-being, including such items as health sanitation, personal hygiene, and food intake. The Health Interview Survey measures

the utilization of medical services and facilities in terms of medical attention, dental care, and hospitalization; use of X-ray facilities, preventive care services, nursing care services, and prosthetic appliances and devices; self-treatment; and other similar components of medical care or services.

The use of the concept of medical attendance necessitates defining the term "physician" and also defining what is meant by "talking to" or consulting a physician. Medical attendance is broadly defined; it does not imply continued attendance or consultation, nor does it require that the physician give the advice in person. The emphasis is on the fact that the condition was brought to the attention of a physician and that the initial action necessary to set in motion the procedure of diagnosis and treatment was taken. Any definition more restrictive than this would involve the question of what constitutes adequate care--a question that is not a part of the subject matter of the survey.

Two of the principal concepts in the area of medical care included in the interview are the physician visit and the classification of visits by type of service. These are closely paralleled by similar concepts in the area of dental care. In both of these areas, the following rules apply: (1) Included in the statistics are visits during which the service is given, by physician or dentist himself or by some other person such as a nurse or dental hygienist acting under the physician's or dentist's supervision, and (2) excluded are visits during which the service consisted of a single procedure administered identically to a number of people who all came for the same purpose, as in a glaucoma or diabetes screening program.

#### QUESTIONNAIRE DEVELOPMENT

The health interview questionnaire consists of a core of questions concerning items about which information has been collected each year. These basic items include acute conditions and injuries, chronic conditions, days of disability due to acute or chronic conditions, limitation of activity caused by chronic conditions or impairment, hospitalization, and the social, economic, and demographic characteristics of the interviewed sample persons. During recent years, medical care provided by physicians and dental care have become core items.

Information on certain other health-related items has been collected in the survey periodically, usually at intervals from 2 to 5 years. In the early years of the survey, these topics were described as rotating items and consisted of measures such as mobility limitation due to chronic illness, dental care, and the proportion of hospital bills paid by insurance. As the survey developed, there was an increasing demand for more detailed information about some of the core items, such as detailed data on types of injuries, the duration of activity limitation, the accessibility of physicians' services, and convalescence following hospitalization. The need for this information led to the expansion of certain areas of the basic questionnaire to provide for the

collection of these data at periodic intervals, introducing a slightly different category of rotating items.

In addition, the questionnaire for a given year has usually included one or more special supplements. While most of the supplements were originally planned for a one-year collection period, some of them deal with topics for which trend information is needed. Since the interview is the most efficient method of collecting this type of data, certain items are added to the basic questionnaire on a planned schedule. These items, which might be described as rotating supplements, include such topics as smoking habits, health insurance coverage, X-ray exposure, home care, the use of special aids, and personal health expenses. Other supplements, particularly those dealing with specific chronic conditions or impairments, have been added to the questionnaire on a less regular basis.

This arrangement of expanded core items, rotating items, and supplements allows the survey to respond to changing needs for data and to cover a greater variety of topics, and at the same time provide for continuous information on certain fundamental topics.

Items considered to be continuing or core have varied through the survey years. In many instances, items gathered periodically early in the survey have been added to the core and are currently surveyed continually. The current list of core items includes the following:

<u>Demographic Items</u>	<u>Health, Health Care and Disability</u>
Age	<u>Health</u>
Race and Hispanic origin	Acute conditions
Sex	Chronic conditions
Marital status	Injuries
Educational attainment	
Current employment status	<u>Health Care</u>
Occupation and industry	Physician visits
Income	Dental visits
	Hospitalization
	<u>Disability</u>
	Bed days
	Work loss days
	Restricted activity days
	Limitation of activity (chronic)

Since 1963 the findings from this survey appear in Series Number 10 of Vital and Health Statistics reports published by the National Center for Health Statistics. The following is a listing of the titles of all reports published since 1963.

1. Acute Conditions, Incidence and Associated Disability, United States, July 1961-June 1962
2. Family Income in Relation to Selected Health Characteristics, United States
3. Length of Convalescence After Surgery, United States, July 1960-June 1961
4. Disability Days, United States, July 1961-June 1962
5. Current Estimates From the Health Interview Survey, United States, July 1962-June 1963
6. Impairments Due to Injury by Class and Type of Accident, United States, July 1959-June 1961
7. Disability Among Persons in the Labor Force by Employment Status, United States, July 1961-June 1962
8. Types of Injuries, Incidence and Associated Disability, United States, July 1957-June 1961
9. Medical Care, Health Status, and Family Income, United States
10. Acute Conditions, Incidence and Associated Disability, United States, July 1962-June 1963
11. Health Insurance Coverage, United States, July 1962-June 1963
12. Bed Disability Among the Chronically Limited, United States, July 1957-June 1961
13. Current Estimates From the Health Interview Survey, United States, July 1963-June 1964
14. Illness, Disability, and Hospitalization Among Veterans, United States, July 1957-June 1961
15. Acute Conditions, Incidence and Associated Disability, United States, July 1963-June 1964
16. Health Insurance, Type of Insuring Organization and Multiple Coverage, United States, July 1962-June 1963
17. Chronic Conditions and Activity Limitation, United States, July 1961-June 1963
18. Volume of Physician Visits by Place of Visit and Type of Service, United States, July 1963-June 1964
19. Physician Visits, Interval of Visits and Children's Routine Checkup, United States, July 1963-June 1964
20. Persons Hospitalized by Number of Hospital Episodes and Days in a Year, United States, July 1960-June 1962
21. Selected Health Characteristics by Occupation, United States, July 1961-June 1963
22. Personal Health Expenses, Distribution of Persons by Amount and Type of Expense, United States, July-December 1962
23. Volume of Dental Visits, United States, July 1963-June 1964
24. Disability Days, United States, July 1963-June 1964
25. Current Estimates From the Health Interview Survey, United States, July 1964-June 1965
26. Acute Conditions, Incidence and Associated Disability, United States, July 1964-June 1965
27. Personal Health Expenses, Per Capita Annual Expenses, United States, July-December 1962
28. Characteristics of Patients of Selected Types of Medical Specialists and Practitioners, United States, July 1963-June 1964
29. Dental Visits, Time Interval Since Last Visit, United States, July 1963-June 1964

30. Hospital Discharges and Length of Stay: Short-Stay Hospitals, United States, July 1963-June 1964
31. Proportion of Surgical Bill Paid by Insurance: Surgical Patients Discharged From Short-Stay Hospitals, United States, July 1963-June 1964
32. Age Patterns in Medical Care, Illness, and Disability, United States, July 1963-June 1965
33. Cost and Acquisition of Prescribed and Non-prescribed Medicines, United States, July 1964-June 1965
34. Cigarette Smoking and Health Characteristics, United States, July 1964-June 1965
35. Characteristics of Persons With Impaired Hearing, United States, July 1962-June 1963
36. Health Characteristics by Geographic Region, Large Metropolitan Areas, and Other Places of Residence, United States, July 1963-June 1965
37. Current Estimates From the Health Interview Survey, United States, July 1965-June 1966
38. Acute Conditions, Incidence and Associated Disability, United States, July 1965-June 1966
39. Prescribed and Nonprescribed Medicines: Type and Use of Medicines, United States, July 1964-June 1965
40. Characteristics of Persons With Diabetes, United States, July 1964-June 1965
41. Family Health Expenses, United States, July-December 1962
42. Family Hospital and Surgical Insurance Coverage, United States, July 1962-June 1963
43. Current Estimates From the Health Interview Survey, United States, July 1966-June 1967
44. Acute Conditions, Incidence and Associated Disability, United States, July 1966-June 1967
45. Limitation of Activity and Mobility Due to Chronic Conditions, United States, July 1965-June 1966
46. Characteristics of Visually Impaired Persons, United States, July 1963-June 1964
47. Disability Days, United States, July 1965-June 1966
48. Prevalence of Selected Impairments, United States, July 1963-June 1965
49. Volume of Physician Visits, United States, July 1966-June 1967
50. Persons Hospitalized, by Number of Hospital Episodes and Days in a Year, United States, July 1965-June 1966
51. Chronic Conditions Causing Activity Limitation, United States, July 1963-June 1965
52. Current Estimates From the Health Interview Survey, United States, 1967
53. Characteristics of Persons With Corrective Lenses, United States, July 1965-June 1966
54. Acute Conditions, Incidence and Associated Disability, United States, July 1967-June 1968
55. Family Use of Health Services, United States, July 1963-June 1964
56. Differentials in Health Characteristics by Color, United States, July 1965-June 1967
57. Types of Injuries, Incidence, and Associated Disability, United States, July 1965-June 1967
58. Persons Injured and Disability Days Due to Injury, United States, July 1965-June 1967
59. Changes in Cigarette Smoking Habits Between 1955 and 1966
60. Current Estimates From the Health Interview Survey, United States, 1968
61. Chronic Conditions and Limitations of Activity and Mobility, United States, July 1965-June 1967
62. Children and Youth, Selected Health Characteristics, United States, 1958 and 1968
63. Current Estimates From the Health Interview Survey, United States, 1969
64. Persons Hospitalized by Number of Hospital Episodes and Days in a Year, United States, 1968
65. Convalescence at Home Following Hospitalization Among Persons 55 Years of Age and Older, United States, July 1966-June 1967
66. Hospital and Surgical Insurance Coverage, United States, 1968
67. Disability Days, United States, 1968
68. Work Injuries Among Blue-Collar Workers and Disability Days, United States, July 1966-June 1967
69. Acute Conditions, Incidence and Associated Disability, United States, July 1968-June 1969
70. Age Patterns in Medical Care, Illness and Disability, United States, 1968-1969
71. Time Lost From Work Among the Currently Employed Population: United States, 1968
72. Current Estimates From the Health Interview Survey, United States, 1970
73. Home Care for Persons 55 Years and Over, United States, July 1966-June 1968
74. Health Characteristics of Low-Income Persons
75. Physician Visits: Volume and Interval Since Last Visit, United States, 1969
76. Dental Visits: Volume and Interval Since Last Visit, United States, 1969
77. Acute Conditions, Incidence and Associated Disability, United States, July 1969-June 1970
78. Use of Special Aids, United States, 1969

79. Current Estimates From the Health Interview Survey, United States, 1971
80. Limitation of Activity Due to Chronic Conditions, United States, 1969 and 1970
81. Volume of X-Ray Visits, United States, April-September 1970
82. Acute Conditions, Incidence and Associated Disability, United States, July 1970-June 1971
83. Prevalence of Selected Chronic Digestive Conditions, United States, July-December 1968
84. Prevalence of Selected Chronic Respiratory Conditions, United States, 1970
85. Current Estimates From the Health Interview Survey, United States, 1972
86. Health Characteristics by Geographic Region, Large Metropolitan Areas, and Other Places of Residence, United States, 1969-1970
87. Impairments Due to Injury, United States, 1971
88. Acute Conditions, Incidence and Associated Disability, United States, July 1971-June 1972
89. Edentulous Persons, United States, 1971
90. Disability Days, United States, 1971
91. Personal Out-of-Pocket Expenses, United States, 1970
92. Prevalence of Chronic Skin and Musculoskeletal Conditions, United States, 1969
93. Characteristics of Persons with Corrective Lenses, United States, 1971
94. Prevalence of Selected Chronic Circulatory Conditions, United States, 1972
95. Current Estimates From the Health Interview Survey, United States, 1973
96. Limitation of Activity and Mobility Due to Chronic Conditions, United States, 1972
97. Physician Visits: Volume and Interval Since Last Visit, United States, 1971
98. Acute Conditions, Incidence and Associated Disability, United States, July 1972-June 1973
99. Prevalence of Selected Impairments, United States, 1971
100. Current Estimates From the Health Interview Survey, United States, 1974
101. Persons With Impaired Hearing, United States, 1971
102. Acute Conditions, Incidence and Associated Disability, United States, July 1973-June 1974
103. Family Out-Of-Pocket Health Expenses, United States, 1970
104. Differentials in Health Characteristics by Marital Status, United States, 1971-1972
105. Persons Injured and Disability Days by Detailed Type and Class of Accident, United States, 1971-1972
106. Blood Donor Characteristics and Types of Blood Donations, United States 1973
107. Hospital Discharges and Length of Stay: Short-Stay Hospitals, United States, 1972
108. Out-of-Pocket Cost and Acquisition of Prescribed Medicines, United States, 1973
109. Prevalence of Chronic Conditions of the Genitourinary, Nervouse, Endocrine, Metabolic and Blood and Blood-Forming Systems and of Other Selected Chronic Conditions, United States, 1973
110. Use of Selected Medical Procedures Associated With Preventive Care, United States, 1973
111. Limitation of Activity Due to Chronic Conditions, United States, 1974
112. Health Characteristics of Persons With Chronic Activity Limitation, United States, 1974
113. Health Characteristics by Geographic Region, Large Metropolitan Areas, and Other Places of Residence, United States, 1973-1974
114. Acute Conditions--Incidence and Associated Disability, United States, July 1974-June 1975
115. Current Estimates From the Health Interview Survey, United States, 1975
116. Persons Hospitalized by Number of Episodes and Days Hospitalized in a Year, United States, 1972
117. Hospital and Surgical Insurance Coverage, United States, 1974
118. Disability Days, United States, 1975
119. Current Estimates From the Health Interview Survey, United States, 1976
120. Acute Conditions, Incidence and Associated Disability, United States, July 1975-June 1976