

INTRODUCTION

Of the ten leading causes of death in the United States in 1990, more than half were chronic diseases, including heart disease, cancers, cerebrovascular disease (also known as stroke), chronic obstructive pulmonary disease, diabetes mellitus, and chronic liver diseases. Heart disease, cancer, and cerebrovascular disease were the first three leading causes of death in the nation (Brownson et al., 1993). Similarly, heart disease, cancer, cerebrovascular disease, and chronic obstructive pulmonary disease are the top four leading causes of death in Utah, respectively (Utah Department of Health, Bureau of Surveillance and Analysis, 1997).

High-quality, population-based surveillance data are critical in planning programs to control chronic diseases and conditions, identifying target populations for those programs, and evaluating the effectiveness of those programs (Utah Department of Health, Division of Community and Family Health Services, Chronic Disease Prevention and Control Team, Cardiovascular Program, 1996). The Utah Health Status Survey (UHSS) conducted in 1986, 1991 and 1996 has been one of the most important data sources for meeting those needs.

This report examines the prevalence in Utah during 1996 of eight chronic diseases or conditions (listed in alphabetical order):

- Alzheimer's disease
- Arthritis
- Asthma
- Chronic obstructive pulmonary disease (COPD) (including chronic bronchitis and emphysema)
- Diabetes
- Heart disease (such as angina, congestive heart failure, and heart attack)
- Hypertension
- Stroke

Most of the data used in this report were from the 1996 UHSS. The 1996 UHSS asked respondents whether any members of their household currently had the chronic diseases or conditions listed above. The actual question wording differed slightly depending on the disease or condition. In the case of Alzheimer's disease, diabetes, heart disease, and stroke, interviewers asked, "Has a medical doctor or other health professional ever told anyone currently living in your household that they have [name of the disease]?" (For heart disease, interviewers further asked: "such as angina, congestive heart failure, or heart attack") For asthma, arthritis, and chronic obstructive pulmonary disease, interviewers asked, "Is anyone living in your household currently under medical care for [name of the disease]?" (For COPD, the interviewer further specified, "such as chronic bronchitis and emphysema?") Respondents who answered "yes" were asked to list the household members who had the disease or condition. Questions regarding hypertension were asked of the survey respondents only. These respondents were randomly selected adult household members. Interviewers asked, "Have you ever been told by a doctor or other health professional you have hypertension, sometimes called high blood pressure?"

The prevalence rates of chronic diseases or conditions were evaluated by selected socio-demographic variables. In addition, comparable data were taken from the 1986 and 1991 UHSS for trend

analyses using the logistic regression model adjusting for age and sex (Hosmer and Lemeshow, 1989). In the 1991 UHSS, questions regarding chronic diseases and conditions were asked in a similar way as the 1986 questions, except that questions regarding high blood pressure were asked of all household members. The 1986 UHSS asked the questions somewhat differently: Instead of asking separate questions for each chronic disease or condition, the interviewer read a list of medical conditions and asked the respondents which household member had the disease or condition, and whether it had been verified by a medical doctor. After reviewing the questionnaires used in the three survey years, we determined that data for arthritis, heart disease, and stroke were comparable across all three survey years of the UHSS, and data for diabetes and asthma were comparable between 1991 and 1996. Therefore we examined trends for arthritis, heart disease and stroke from 1986 and 1991, and compared the prevalence rates of asthma and diabetes between 1991 and 1996. Detailed findings regarding prevalence of chronic diseases and conditions from the 1991 and 1986 UHSS may be found in previously published reports (Utah Department of Health and Utah State University, 1992).

In this report, we did not provide the prevalence estimate of hypercholesterolemia because approximately 28% of the 1996 UHSS participants reported that they had never had their blood cholesterol checked. A more careful examination of the data revealed that persons who had never had their blood cholesterol checked tended to be younger (mean age = 35 years; 71% were less than 40 years old) and healthier (8% rated their own health as “fair” or “poor”), compared with persons who had ever had their blood cholesterol checked (mean age = 48 years; 35% were less than 40 years old; 15% rated their own health as “fair” or “poor”). Therefore, the prevalence estimate of hypercholesterolemia could have been severely biased if we only used data for those who reported having had their blood cholesterol checked.

The 1996 UHSS was conducted by Gallup, Inc., under the guidance of the Bureau of Surveillance and Analysis at the Utah Department of Health. The survey was a telephone survey of civilian, non-institutionalized, Utah residents, utilizing a multi-stage complex sample design. All variance estimates in this report were computed using SUDAAN (Software for the Statistical Analysis of Correlated Data) statistical software to account for the complex nature of the survey design (Levy and Lemeshow, 1991; Shah et al., 1995). The estimated total number of persons in the population with chronic diseases or conditions were computed using the Utah 1996 population, based on data published by the Governor’s Office of Planning and Budget in October 1994 (Governor’s Office of Planning and Budget, 1994). Prevalence estimates with standard errors that were at least 50% of the point estimates were not reported; instead, they are indicated as having “insufficient data to calculate an estimate” in the reference tables. For more information about the design and implementation of the 1996 UHSS, readers may refer to the technical appendix at the end of this report. One point warrants special attention: *Because the survey only recruited non-institutionalized household members, it is likely that the prevalence rates of some chronic diseases and conditions, especially that of Alzheimer’s disease, have been underestimated.* Therefore, we advise readers to exercise caution when interpreting the findings in this report.

Another caveat is that the UHSS data are cross-sectional. Therefore, causal inferences about the relationships between the prevalence rates of chronic diseases or conditions and the socio-demographic variables examined in this report should be made very cautiously (Rothman, 1986).