THE VERMONT HEALTH RISK SURVEY AND
THE DESIGN OF COMMUNITY WIDE
PREVENTIVE HEALTH PROGRAMS

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ABSTRACT: A Vermont health risk survey was performed to gain information on health knowledge and behaviors of the population. Telephone interviews with 1,594 individuals ascertained respondents' demographic characteristics, preventive health behaviors, and health knowledge. Risk prevalence was obtained on five health risks: alcohol (12%), smoking (33%), lack of exercise (70%), overweight (39%), and non-use of seatbelts (86%). Low income, less education, and blue collar occupation status were associated with increased risks of smoking, lack of exercise, and non-use of seatbelts. Increased prevalence of certain risks are associated with the 18-24 year old age group; 32% of those males reported an alcohol risk and 94% reported non-use of seatbelts. Combined risk scores were increased in groups with low income, less education, and blue collar occupations. These variations in health behaviors by social group were not explained by differences in health knowledge. Design of primary prevention activities needs to (1) be community wide, (2) utilize information on the epidemiology of health behaviors, (3) influence diverse community groups and (4) intervene before risk behaviors are established.

INTRODUCTION

To assist in the development of statewide health promotion initiatives, a health risk survey was performed to gain information on health knowledge and behaviors of the adult Vermont population. This survey was conducted by the Vermont Department of Health and the Office of Health Promotion of the University of Vermont College of Medicine. Integration of this health survey data with a health behavior model is described as a useful approach in designing health promotion activities.
The distribution of preventive health behaviors within a population is not uniform but varies with age, sex, and social characteristics. Effective application of preventive health programs in a community benefits from information on the epidemiology of health behaviors. This requires study of the patterns of preventive health behavior occurrence in populations and of the factors that influence those patterns.

Blackburn has set forth a convincing rationale for preventive strategies that are community-wide, based on evidence that common adult diseases in affluent societies are the result of culturally determined environmental factors and involve socially learned behaviors. The design of these community wide efforts to modify preventive health behaviors must cope with subgroups within a population, many of which exhibit a diverse pattern of health risks and may have varying resistance to efforts to influence their health behaviors.

**METHODS**

The Vermont Health Risk Survey collected data through telephone interviews with 1,594 non-institutionalized Vermonters aged eighteen and over. The study sample frame consisted of all operational residential telephone numbers in the State of Vermont. The data collection phase of the project was conducted by the University of Vermont Biometry Facility. This facility, the statistical support unit of the College of Medicine, has extensive experience in survey research and staff of trained telephone interviewers.

Telephone numbers were selected for inclusion in the study using a random digit dialing system developed by the Biometry Facility. One individual per household, randomly selected from a list of all household members aged eighteen and over, was interviewed. Interviewees were given the opportunity to refuse to participate at the beginning of the interview. The resultant non-response rate was 24 percent. The interview, which took about 25 minutes to complete, included questions about the respondent's demographic characteristics (age, sex, residence, frequency of physician visits), preventive health behaviors, and health status (e.g., relationship between smoking and lung cancer, and knowledge about preventive health measures).

Upon completion of data collection, survey forms were edited, coded and, key entered into a computer file. The sample was then weighted to reflect the age, sex, and geographical distribution of the Vermont adult population. In general the sample conformed to the State population except for a 24 percent under representation of 18-24 year old cohort, and some maldistribution among geographic regions. All analyses were performed on the weighted sample.

Respondents were assigned to risk categories for five health behaviors (smoking, drinking, lack of exercise, being overweight, and seatbelt utilization) according to the criteria presented in Table 1.

Stepwise logistic regression analysis using the BMDP software was em-