Introduction

Despite the well-documented relationship between BMI and the comorbid prevalence of diabetes, hypertension, and dyslipidemia, and the inexpensive and effective method to collect data on many aspects of metabolic disease to BMI. Because it contains both self-reported and objective data, BMI is an important tool in the diagnosis and management of metabolic diseases. In the United States, using BMI and other health information, the National Center for Health Statistics (NCHS) has estimated the prevalence of diabetes, hypertension, and dyslipidemia among adults. The prevalence of diabetes mellitus, hypertension, and dyslipidemia is defined using the clinical and laboratory criteria of the American Diabetes Association and the National Heart, Lung, and Blood Institute.}

Objectives

To compare the distribution of BMI levels among adults with diabetes, hypertension, and dyslipidemia with those without metabolic diseases.

To compare the results of these measures between the national surveys (NHANES and SHIELD).

Methods

NHANES is a large cross-sectional study that includes 5000 households selected to be representative of the US adult population. Standard errors were estimated using the Taylor linearization method. NHANES data on adults aged 18 and over were used to estimate the prevalence of diabetes, hypertension, and dyslipidemia in the US adult population. The screener questionnaire consisted of 12 questions developed by a diversified panel of experts. The questionnaire was designed to identify individuals who have diabetes, hypertension, and/or dyslipidemia. Respondents who answered “yes” to any of the questions were then asked to provide further information about their condition. A diabetes questionnaire was developed to identify respondents who have diabetes. The diabetes questionnaire included questions about the diagnosis of diabetes, the use of diabetes medication, and the fasting plasma glucose level. Respondents who answered “yes” to any of the questions were then asked to provide further information about their condition. The hypertension questionnaire included questions about the diagnosis of hypertension, the use of antihypertensive medication, and the blood pressure measurement. Respondents who answered “yes” to any of the questions were then asked to provide further information about their condition. The dyslipidemia questionnaire included questions about the diagnosis of dyslipidemia, the use of medication for dyslipidemia, and the lipid measurement. Respondents who answered “yes” to any of the questions were then asked to provide further information about their condition.

Results

The prevalence of diabetes mellitus, hypertension, and dyslipidemia was estimated using the clinical and laboratory criteria of the American Diabetes Association and the National Heart, Lung, and Blood Institute. Both studies demonstrated that diabetes mellitus was associated with each of these metabolic diseases. The prevalence of diabetes mellitus was less in the SHIELD study compared to the NHANES study. The prevalence of hypertension was similar in both studies. The prevalence of dyslipidemia was higher in the SHIELD study compared to the NHANES study.

Conclusions

BMI is a useful tool for the diagnosis and management of metabolic diseases. Both studies demonstrated that diabetes mellitus was associated with each of these metabolic diseases. The prevalence of diabetes mellitus was less in the SHIELD study compared to the NHANES study. The prevalence of hypertension was similar in both studies. The prevalence of dyslipidemia was higher in the SHIELD study compared to the NHANES study.

References

1. National Center for Health Statistics. 2003 Annual Supplement to the Current Population Survey:

2. World Health Organization. Obesity and overweight factsheet.
