ABSTRACT. The aim of this 6 year follow-up study is to analyze the role of physical health indicators in predicting mortality. The data used were obtained from a multidimensional survey on a wide population of 70 to 75 year old subjects living at home. Baseline self-reported physical health information regarding the use of medical health services, diagnoses, and medications was collected. Multiple logistic regression analysis was used to define the multivariate association with mortality of the baseline presence of the diseases or of medications used while adjusting for sex and IADL score. The number of diseases and medications related to mortality, and the medical services use index were entered together in the same statistical model to assess which of these factors had a preeminent role in predicting mortality. Indicators such as medications and medical services use were more important mortality predictors than the diagnosis itself. A significant interaction of the variables with gender was also found.

Key Words: self-reporting, health status, mortality, Italy

INTRODUCTION

The elderly are a group at risk because they are financially poorer and likely to live alone in unhealthy housing conditions. These factors, in addition to other lifestyle habits that frequently are culture-related, may strongly affect the maintenance of health and, secondarily, mortality. In the general population, and especially in the elderly, mortality can be predicted independently by many factors. Even if several non-physical conditions are useful predictors, somatic factors are strongly related to morbidity, disability, and mortality (Ferrucci, Guralnik, Baroni, Tesi, Antonini, and Marchionni 1991; Donaldson and Jagger 1983; Koyano, Shibata, Nakazato, Haga, Suyama, and Matsuzaki 1989).

Physical health, however, is not a unidimensional concept and widely used indicators do not always yield identical results. This fact probably depends not only on the way information is collected, but also on the different populations investigated. The level and accessibility of medical care, on the one hand, and the cultural background, on the other, probably are the two main determinants of well-being in a population. In Italy, access to medical services is guaranteed to every citizen, regardless of financial situation, but the quality of care is not always satisfactory. This circumstance is particularly likely for the elderly, since only a few hospitals offer a complete geriatric assessment and adequate services. On the other hand, the mean education level of the Italian population is lower than that of the American: this fact may negatively affect health risk habits and the ability to seek out medical care when appropriate.

Self-reported health status, in some non-Italian studies, seems to differ from
physician ratings, with individuals rating themselves more positively than do their physicians (Maddox 1962; Tissue 1972). However, the opposite finding is reported for certain pathological conditions, such as arthritis or poor eyesight (Ford, Folmar, Salmon, Medalie, Roy, and Galazca 1988). While still other studies demonstrated that self-reports widely correspond to medical findings (Linn and Linn 1980; Ferraro 1980). This final observation supports the use of self-reported information in epidemiologic studies. While answers to simple questions such as “How would you rate your health?” are considered to be brief and useful health status indicators and good predictors of mortality, they may be difficult to interpret (Idler, Kasl, and Lemke 1990; Mossey and Shapiro 1982). For example, different subgroups of elderly (i.e., males vs. females) may behave differently in assigning self-ratings, and mood disorders may have a negative influence. For these reasons more specific questions requiring self-reporting of a disease or a treatment and the use of medical services probably are the most reliable indexes of physical health that can be easily collected using a questionnaire.

The aim of this study is to investigate to what extent self-reported health status indicators, such as the number of diagnoses and medications and the medical services use index, could predict mortality at 6 years from the data collection. The demonstration in an Italian, poorly educated, elderly population of the correlation between physical health self-reporting and mortality, as previously described in several studies conducted in the U.S.A., could be useful for cross-cultural research.

SUBJECTS AND METHODS

Data were obtained from a multidimensional survey on a population of 1,201 70 to 75 year old subjects (386 males and 815 females), living at home in the downtown of Brescia in northern Italy. The sample was obtained from the Government Registry Office and constituted 92.2% of the whole 70 to 75 year old population in the area investigated. The designated area corresponds to a single health district and contains a single general hospital with a geriatric ward and a staff of general practitioners who make home visits. Data collection was undertaken between February and June 1986 by 10 general practitioners who conducted home interviews. Information was collected on demographic variables, socio-economic status, social activities, cognitive status, affective status, somatic health and functional status. Cross-sectional data were evaluated with specific interest in the relationship between somatic symptoms, depression, and life events (Rozzini, Bianchetti, Carabellese, Inzoli, and Trabucchi 1988) and between socio-economic conditions and nutritional intake (Bianchetti, Rozzini, Carabellese, Zanetti, and Trabucchi 1990).

In order to enhance the validity of the data, the mentally impaired were excluded. To identify demented subjects, we used the Mental Status Questionnaire (MSQ) (Kahn, Goldfarb, Pollack, and Peck 1960). The mean score in our population was 0.68 ± 0.99. Forty subjects (3%) with a MSQ score higher than 2