ECONOMIC, HOUSING CONDITIONS AND HEALTH OF THE OLDEST IN ITALY: EVIDENCE FROM EU-SILC

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THEORETICAL BACKGROUND

Economic and demographic factors are key correlates of health status in old age. Recently there has been a significant increasing interest to evaluate the associations of such elements with individual health in Italy. However, no attention was devoted to the link between housing and health. Many studies on such topic were carried out in North and Western European countries and they show that living in a comfortable and well equipped house is usually linked to a good health status (and vice versa).
Since economic and housing statuses are highly correlated (the richer you are, the more comfortable your house is), in this paper we explore all these elements together and study their association with health.
It is known from international literature the positive link between socioeconomic status and health, the so called *SES-health gradient*, and also between housing and health. In this work we hypothesize that such association can vary according to the living arrangement: people living alone are more likely to have scarce economic conditions and deprived houses that people living in households, so that their risk of bad health could be higher (see British Medical Association 2003).

The theory that guides our work is the "standard economic model of health" developed by Grossman (1972a,b), whose basic assumption is that individuals allocate their resources to produce health. Health is considered as a *durable capital stock* whose output is *healthy time*. Each individual is provided with an initial amount of such stock that depreciates with age and can be increased with investment. Such mechanisms are summarized in the *health production function* that include as covariates the genetic endowment, the stock of health from the past, the educational level, the use of medical care and the health behaviour.
Economic status and health are clearly in a *reverse cause-effect* relation, because, on the one hand, a good health status allows for the accumulation of human capital, the labour market participation and income gaining; on the other hand, having a good economic position permits to prevent and heal diseases and sickness (WHO 2004). This leads to an endogenous link. The same holds for the relation between health and housing conditions. For a healthy individual it is more probable to have a good quality house, and, conversely, good housing conditions favour a good health status.
Our study does not control for endogeneity between health and socioeconomic status, so that we do not comment our results in terms of relations (that could imply a cause-effect relationship), but in terms of associations among variables.

DATA AND METHODS

In this work we focus on economic, housing and health conditions of the oldest in Italy, that is people aged 65 or over. To this aim we use data from the third wave of the new project on Income and Living Conditions, EU-SILC 2006. EU-SILC is the most recent Eurostat social survey with information on income. It is the successor of ECHP and it has the goal of collecting timely and comparable cross-sectional and longitudinal micro data on income, poverty and social exclusion

(Eurostat 2005). The survey provides detailed information on economic resources, working conditions, incomes and housing status of all surveyed individuals.
Our aim is to analyze the associations among health status and socioeconomic and housing situation at individual level. Furthermore, we want to study whether such associations differ if an individual lives alone or in household. We expect a positive link between economic characteristics and health: good economic conditions usually favour a good health status and vice versa. We expect a similar result for the association between housing and health as well. We guess that economic elements are less important among individuals living in households, because living with others has a preventive and protective role on individuals' health.
Our sample size is 11,262. Since we focus on old individuals, the positive relation among socioeconomic status and health is not straightforward. In fact, since the current stock of health is partly determined by past health and behaviours, the economic and housing situation may not have a large impact on the current stock of health in old people. Increasing economic resources could increase the use of health care services or induce positive health behaviour, but changes may be slow or negligible (Smith and Kingston 1997).
In our analysis we firstly build a *housing deprivation index* by a principal component analysis to synthesize the main housing dimensions that can affect individual health status (number of rooms, leaking roof, heating, etc.).
Then, we run a logistic model to analyze associations among health status and a set of covariates on housing and economic situation (included the housing deprivation index). The dependent variable in this work is the *subjective and self-reported health status*. Such variable has been found to be a good predictor of future mortality and health care and to have a predictive value for the decline of functional ability among the elderly and among the general population (Egidi *et al.* 2007).

RESULTS

Our preliminary analyses show the common pattern according to which people who live alone are mostly widowed women, while men live usually in households or couples. This is mostly due to the lower female mortality and the higher tendency for widowed men to re-enter in union. People living in households have a better health than those living alone.
The descriptive analysis shows us some associations among economic and housing conditions and perceived health. In particular, health status decreases significantly with age, it is better for men than for women, for people living in a well equipped house and for people not living alone. At this very preliminary stage it doesn't seem to be any association with income (that is mostly from pensions). Further analyses are needed to go deeply into our research aims.

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