

INTRODUCTION: HEALTH, AGING, AND WEALTH IN ITALY

In the past decade the analysis of household behavior has made considerable progress due to the increased availability of microeconomic datasets on income, labor supply, consumption, portfolio choice, and housing. A major gap of existing Italian surveys that record information on income, wealth and/or consumption, however, is information on health status, health expenditures and health care utilization.

Economists are increasingly interested in the relation between health and economic aspects of household behavior, but their research is hampered by lack of suitable, comprehensive surveys. Until very recently, health information has been mostly absent from Italian surveys of household budgets and economic conditions (notable exceptions are the 1993 and 1995 waves of the Bank of Italy Survey on Household Income and Wealth, SHIW). Interest in the association between health outcomes, economic resources and labor market conditions, has led a group of Italian researchers to fill the gap with the collection of new microeconomic data.¹

The product of this collective effort is the Survey on Health, Aging and Wealth (SHAW). The questionnaire and the sample design are patterned after the US Health and Retirement Survey and the English Longitudinal Study of Ageing (ELSA) project, which cover a range of issues bearing on the relations between health and wealth, aging and wealth, health and retirement. Focus on the elderly is warranted because major health problems occur in old age and the elderly account for the largest share of medical expenditure.

The SHAW is a full-scale survey in its own right, but can also be seen as the first step of the EU-sponsored SHARE project (Survey on Health, Aging and Retirement in Europe), that is currently being tested in 10 European countries and will in due course (if adequate funding becomes available) be the leading European longitudinal study on the elderly. The SHAW sample consists of a representative sample of about 2500 individuals over

¹ Agar Brugiavini of the University of Venezia, Luigi Guiso of the University of Sassari, Tullio Jappelli of the University of Salerno, Franco Peracchi of the University of Roma Tor Vergata, and Guglielmo Weber of the University of Padova coordinated the research group.

50 years old. The sample is representative of the Italian population over 50. Some of the questions refer to the household (for instance, assets). Others are posed to each individual sampled; for instance, demographic information and an overall assessment of health status is provided for each household member. More detailed questions on health status, job outcomes and expectations of future events are asked only to the respondent and spouse. These characteristics make SHAW a unique source for studying the relation between socioeconomic status, health outcomes and health care utilization. Further details on the survey are provided in Brugiavini, Jappelli and Weber (2002).²

This special issue of the *Giornale degli Economisti* contains five articles that use the publicly available version of SHAW and other data sets to address various issues of high economic relevance in the analysis of individual behavior. Each of the papers uses microeconomic data to answer one or more policy questions related to health, wealth or consumption of older worker. The papers cover a broad range of topics, and exploit a large fraction of the information available in the survey, but by no means the whole of it. The policy implications of the analysis are as wide ranging as the subject matter covered in the survey questionnaire. We hope that SHAW will become a standard reference for all those researchers interested in the analysis of issues in the economics of aging.

There is ample evidence in the literature on the correlation between well-being and health status, even controlling for the influence of demographic variables and risk factors. *Jappelli and Padula* confirm this correlation using SHAW and also provide evidence that the quality of health care does affect health outcomes. In order to address the issue, they argue that the impact of the quality of health care on health outcomes is difficult to measure using cross-country data, because quality differences are inextricably correlated with other institutional and economic differences, but that the effect of quality can be detected within countries, exploiting geographical variability in the quality and provision of health care. In this respect, the Italian data are particularly well suited, because the quality of health care varies considerably between Italian regions and even within regions. This allows identification of the effect of quality on health outcomes, even controlling for regional effects. They then provide evidence on the impact of the quality of health care on health outcomes by matching the microeconomic data

² Brugiavini, A. - Jappelli T. - Weber G. (2002), "The Survey on Health, Aging and Wealth", CSEF WP 86, University of Salerno. Data, questionnaire and documentation can be downloaded from the CSEF web site (http://www.dise.unisa.it/WP/shaw_public_file.dta).

with regional indicators of the percentage of patients who are satisfied with medical assistance, and find that higher quality is indeed associated with better health outcomes. The evidence provided by the regional indicators, however, cannot rule out that health status is affected by unobserved regional factors correlated with the quality of health care, rather than with genuine variations in the quality indicator. They thus provide further evidence based on the panel section of the 1993-95 SHIW, which contains a quality indicator that varies at the individual level. Regression analysis on this sample confirms that the quality of health care affects health outcomes, even controlling for regional effects and for possible endogeneity problems. The evidence in Jappelli and Padula suggests that differences in the quality of health care contribute to explain inequality in health outcomes. This carries important policy implications for the design of health care systems. If the goal of national and regional policy is to improve health standards, the government should explicitly target the quality of the health system, rather than such other indicators as per-capita health expenditure. Furthermore, to promote equality of opportunities and reduce health disparities, one should seek to improve the standards of districts that display poor quality of health care.

Inequalities in health conditions can impact consumption patterns, making some households effectively poorer than measured using traditional definitions of income and consumption. In this respect, *Berloffa, Brugiavini and Rizzi* provide a novel approach to measuring the effects of health on well being. The approach builds upon the well-known concept of “equivalent income”, i.e. a measure of income that accounts for different characteristics of the household (such as number of children), which may impact on purchasing power. They exploit the notion that health conditions affect welfare because people with different health conditions have different spending patterns. They implicitly assume that “health causes economic outcomes” and focus on the mechanism through which this relationship affects welfare. This approach allows to measure the welfare implications of the distribution of self-reported health conditions for a sample of older Italian households. The exercise carried out by *Berloffa, Brugiavini and Rizzi* makes use of equivalence scales estimated for two commodities which should be relevant for the age group under investigation, that is, medical expenses and food purchases. On the basis of these scales they measure *health equivalent incomes* (the income that the household would need to enjoy the same utility that it actually enjoys if it were in “good health”) and map welfare levels in money metric terms. They find that inequalities in health induce a substantial welfare loss reflected in inequality in equivalent incomes. The implication is that health differences impact on consumption patterns, making

some households effectively poorer. This result bears an important policy implication: governments concerned with inequality should envisage to compensate individuals in poor health.

Family interactions play a key role in shaping saving decisions of the elderly population. *Miniaci and Weber* use SHAW data to assess whether household wealth falls in old age, and which factors affect the shape of the wealth age profile. Wealth and income data in the SHAW, as in other microeconomic surveys, are plagued by missing values in at least some of their components. For this reason their paper tackles the issue of imputing a wealth (and income) measure for those households who do not report their exact holdings of each asset, but provide instead answers to unfolding brackets questions. They find that Italian households fail to run down their financial assets after retirement, but let their total wealth decline past age 60. This fall is largely due to the decrease in home wealth. Using information from the Bank of Italy SHIW, a comparable data source covering a 12-year period, they find that the wealth decline observed in the cross-section is mostly due to cohort effects. They use both non-parametric graphical evidence and standard regression analysis to evaluate how total and financial wealth is affected by the presence of non-insurable health risks, and if a bequest motive operates or preferences exhibit other forms of intergenerational dependency. The key result is that subjective measures of health status, bequest and gifts motives play a significant role in explaining total (and, to a lesser extent, financial) wealth even after allowance is made for a number of objective socio-economic factors. Miniaci and Weber's estimation results reveal that family interactions play a key role in shaping saving decisions of the Italian elderly population and imply that existing economic policy interventions aimed at helping the aged (ranging from the public pension system to free access to health care) could also benefit their offspring. The economic policy debate should therefore take into greater account the existence of these intergenerational links for the design of welfare programs and of the tax system.

SHAW data provide interesting retrospective information on injury and illness rates by the elderly population. This information is used in the article by *Barone and Nese*, who analyze the problem of on-the-job safety in Italy using also subjective indicators of risk perception by workers drawn from the 1995 SHIW. They argue that risk perceptions provide insights into the risks to life or health which workers are exposed. However, the usefulness of workers' beliefs is limited when trying to understand the real risks posed by different jobs because this indicator relies upon the individual's ability to make appropriate assessments. The evidence provided with SHAW data indicates a high level of job hazards in Italy: about 6 percent of respondents

declared they had reported injuries or illness at work over their lifetime. The incidence of injuries is higher for males, residents in the South of Italy, people with compulsory education or less, manual workers, especially in the building and transport sectors. In general, the results based on indicators of workers' beliefs available in the SHIW are consistent with those based on SHAW data so that one can argue that individuals are able to use information on risk in order to make appropriate judgments, with the notable exception of public sector workers. Barone and Nese use a subjective risk aversion measure taken from the SHIW to analyze why job risk perceptions differ for public sector workers. Further, they use SHAW to highlight that a positive association between cigarette smoking and injuries at work exists even if they control for job and individual characteristics but admit that the nature of this association requires further investigation.

After the 1992 reform of the Italian National Health System a larger share of expenditure for physician services is financed out-of-pocket, because access to public providers is increasingly subject to co-payments, and because individuals rely more on private professionals. Two policy issues emerge. First of all, how will the demand and the expenditure for physician services change in the future? Secondly, does the foreseeable reduction of public health financing of physician services impact the equality of access? These questions motivate *Fabbri and Monfardini* microeconomic analysis of the demand for physician services. They use the SHAW to analyze physician services utilization distinguishing between public and private providers. The theoretical framework relies on two models of the demand for health care. The Grossman model posits that utilization of medical services is primarily patient determined, while in the agency model physicians play an active role in assessing the amount of services that patients should consume. They estimate count data regression models to assess the relative importance of income, education, private insurance and supply characteristics as determinants of health utilization. The results indicate that private health insurance affects positively the frequency of private specialist visits. This supplier induced demand effect might be a major issue in the future, given the foreseeable reduction in the public provision of specialist consultations and the enlargement of the doubly insured segment of the population. A predictable effect is an increasing tendency towards the integration of insurance companies and medical providers aimed at reducing ex-post moral hazard behavior of physicians. The paper also finds that household resources increase the propensity to contact private specialists and evidence of government failures to guarantee equal access opportunity to public medical consultation across the country. To the extent that private specialist are of higher quality than public ones, the Italian national health system favors indirectly the rich.

All the articles in this special issue of the *Giornale degli Economisti* were first presented at the AIEL conference held in Salerno, 26-27 September 2002. They have been revised to take into account a number of suggestions by conference participants, referees and editors. The articles are part of EU-sponsored projects on *The Economics of Aging in Europe* (Research and Training Network Programme) and AMANDA (Quality of Life and Management of Living Standards Programme). Funding for data collection has come from the Italian Ministry of University and Scientific Research and from the European Union under the TMR Research Network on Saving and Pensions.

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