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**Disease Incidence and Mortality in Older Americans and Europeans**

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**Extended Abstract**

*Background*

We know little about international differences in the processes determining international differences in the prevalence of the chronic diseases of old age. The processes underlying disease prevalence include disease incidence and survival which can only be estimated from longitudinal data. The U.S. is known to have higher prevalence than Europe of most chronic conditions (Michaud et al. 2011; Crimmins et al. 2010). Higher prevalence can result from either higher incidence or longer survival. This paper uses comparable longitudinal data for populations aged 50 to 85 from the U.S. Health and Retirement Study (HRS) and eleven European countries from the Survey of Health, Ageing and Retirement in Europe (SHARE) to examine age-specific differences in disease incidence and mortality from 2004 to 2006. We investigate incidence of diabetes, heart disease, hypertension, stroke, cancer and lung disease and associated mortality. We examine the role on incidence of socioeconomic status, gender, obesity and smoking.

*Data*

This analysis use two datasets: the Health and Retirement Study (HRS) and the Survey of Health, Ageing and Retirement in Europe (SHARE) and two period analyses,

2004 and 2006. Our study includes information about individuals aged 50 to 79 for the U.S. and eleven European countries. While the data we present below is by country, because of the small sample size in each European country under study, for the final analysis we are going to geographically group the countries as follow: Scandinavian (Denmark and Sweden); central Europe (Austria, France, Germany, Switzerland, Belgium and the Netherlands); and Mediterranean (Spain, Italy and Greece).

The sample sizes are composed of more than 17,000 individuals in the U.S. and more than 27,000 individuals in Europe. Samples are weighted in the analyses to be representative of the national - or European - populations.

Our paper will also compare the quality of transition data in both surveys paying particular attention to non-response to follow-up and mortality reporting in the surveys compared to life-tables. Mortality rates in each SHARE country are compared with life tables from the Human the Mortality Database (HMD, 2004). We are using these preliminary results to reweight data for attrition.

In preparation for our analysis we examine the prevalence of the various conditions in each country in 2004. The self-reported measures include diabetes, heart disease, hypertension, stroke, cancer, lung disease, obesity and smoking. Prevalence measures vary considerably over these countries.

Finally we report disease incidence measures by age groups. We report a clear pattern of increasing incidence up to the later ages but then there is a decrease at the later ages. We are working to either validate this pattern or assess how data deficiencies could cause this. Mortality from the European surveys is compared to life table mortality rates from the 2004 Human Mortality Database. Survey estimates are very close to the lifetable estimates through age 80 for all of the countries.