



## COLLOQUIUM SERIES

### European Doctoral School of Demography

**Wednesday, March 29th – 2.30 p.m.**

Centro di documentazione europea (Sapienza Università di Roma, Via del  
Castro Laurenziano 9, Roma - Facoltà di Economia, floor -1)

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### *Minimum Death Rates and Maximum Life Expectancy: The Role of Concordant Ages*

**Abstract** The relationship between minimum death rates and maximum life expectancy is comprehensively explored using the novel concept of concordant ages, defined as ages at which the minimum death rates occur in the population with the maximum life expectancy (or best practice population). We also examine the difference over time between maximum life expectancy and 'potential' life expectancy, based on minimum rates at all ages among populations in the Human Mortality Database. We find that for any best practice population, concordant ages comprise less than half of the age range, but have produced more than half of the gain in life expectancy. This is because concordant ages are concentrated at increasingly older ages over time, coinciding with the ages that contribute most to change at a given level of life expectancy. Only five populations have frequently achieved maximum life expectancy: New Zealand non-Maori, Sweden, Norway, Japan and Switzerland. Based on maximum life expectancy derived from population-specific forecasts of mortality, we expect that concordant ages will continue to lead increases in female maximum life expectancy, but that they will play a weaker role in male maximum life expectancy.