

## **Los efectos de una dieta inadecuada en la desigualdad en el bienestar biológico y la muerte en el mundo rural en el largo plazo**

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### **The persistence of social inequality on adult mortality in rural Spain, death cohorts 1546-2022**

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This paper analyzes social inequality in adult mortality during the last 500 years in rural Aragon (Spain). We use individual-level microdata corresponding to more than 20,000 individuals whose socioeconomic status, age at death and other family, cultural and environmental variables are known. Using advanced statistical techniques (mainly event history analysis), we followed all individuals who died after the age of seven years in 17 villages throughout their lives. This study is focused on observing the evolution of inequality in mortality by SES over 500 years, deepening and relating it to the debates present in the historiography. Being a pioneer study in connecting adult mortality with SES for almost five centuries has allowed us to verify the persistence of social inequality in the face of death in rural Spain, which contrasts with the results obtained in northern European countries where these differences only emerge from the nineteenth century onwards.

Inequality; Longevity; Adult mortality; Long-run; Rural Spain

### **Only the wealthiest will survive? How land and urban property shaped families' demographic outcomes in rural Spain**

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This article uses a highly detailed micro-database for 13 Aragonese municipalities to analyse the relationship between wealth and fertility in rural Spain from the seventeenth century to the mid-twentieth century. This is a question of great interest because it is part of the debate as to whether the better-off have been the ones who have passed on the most genes from one generation to the next as a result of their greater number of surviving descendants (Clark, 2007).

Covering around 400 years and the life trajectories of approximately 150,000 individuals (connected to their ancestors and descendants) from parish baptism, marriage and death records, and information from wills and urban and land property for those individuals, we are able to disentangle how wealth affected marital fertility and the likelihood of survival of these children.

The preliminary results show that wealth directly affected marital fertility and the likelihood of survival of these children, disappearing the effect in the twentieth century with the demographic transition. Thus, this paper shows that living standards played a major role in the reproductive success of families, and hence the transmission of genes from one generation to the next one."

Wealth; Fertility; Genes; Rural

### **Nutritional transition and demographic changes: the role of the Mediterranean Diet in the longevity of the centenarian population in Sardinia (LONGMED)**

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This project is being evaluated in the ERC Starting Grant 2023 call. The Mediterranean Diet is considered to be one of the healthiest dietary patterns today. This project focuses on the diet of Sardinia, an area where exceptional longevity and a high number of centenarians have been observed. The novelty lies in the dialogue established between history and the present day, but focusing on nutritional, social, cultural and gastronomic issues. The results will provide the scientific evidence needed to identify the main dietary and nutritional factors that favour increased life expectancy and longevity in humans. In a first phase, diets and demographic and epidemiological indicators will be reconstructed and analysed for the entire 20th century in the population of Sardinia, using historical sources and oral history. Data on the current centenarian population will be obtained and their dietary pattern, nutritional status, body composition, level of physical activity, quality of life, as well as biochemical and genetic indicators related to high longevity will be assessed. The methodology includes qualitative and quantitative tools that will provide an exhaustive knowledge of the past and present diet of our population and will allow us to relate it to a multitude of indicators.

Nutrition; Longevity; Mediterranean Diet; Sardinia

### **El consumo de alimentos como proxy de la desigualdad nutricional: el distrito de Horta (Islas Azores), 1860-1929**

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La estatura final de una persona, como indicador del estado nutricional, está determinada por el consumo de necesidades básicas, como la alimentación y la atención médica durante la etapa del crecimiento. Así, una condición causada por una dieta inadecuada o insuficiente puede provocar malnutrición. Con datos de estatura del archipiélago de las Azores, este trabajo estudia la relación entre producción, consumo de alimentos y salud nutricional. Examina el caso del distrito de Horta entre 1860 y 1929. Los datos de estatura de 9.472 emigrantes (5.103 hombres y 4.369 mujeres de 20 a 29 años) extraídos de los registros de pasaportes del distrito de Horta y las estadísticas de producción y consumo del Gobierno Civil de Horta para el año 1884 constituyen las principales fuentes de estudio. Los resultados revelan desigualdades nutricionales: los emigrantes nacidos en

la isla de Pico eran, de media, 2,6 cm más altos que los emigrantes nacidos en la isla de Faial. La ventaja biológica de Pico se explicaría, entre otros factores, por el mayor consumo de alimentos que tuvieron sus habitantes (p. ej. en cereales, legumbres, carne de cerdo...) pese a las limitaciones edafológicas que tenía la isla para el cultivo de productos básicos.

Estatura; Consumo de alimentos; Desigualdad nutricional; Distrito de Horta; 1860-1929

### **Refugee Influx and Its Impact on Rural Communities during the Spanish Civil War: A Case Study**

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This study examines the impact of the influx of refugees on a rural community during the Spanish Civil War. Using data on arrival dates, gender, professions, and salaries of refugees, this research aims to shed light on the economic and social consequences of the refugee crisis on a small industrial town on the outskirts of Barcelona. Specifically, we explore the impact of refugees on the local diet and mortality rates in the long term. While our research is ongoing and we do not have conclusive results at this time, we anticipate that this case study will contribute to a broader understanding of the consequences of refugee influx on rural communities during times of conflict.

livings standards; refugees