

## **Course Syllabus- Population Health and Well-Being consequences of Demographic changes**

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**Language of Instruction:** English

**Professor:** Aïda Solé-Auró & Jordi Gumà. Aïda Solé i Auró will be the coordinator of the course and teacher. Both professors are UPF faculty members and member of the DemoSoc Research Group (DemoSoc).

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**Course Contact Hours:** 30 hours

**Recommended Credit:** 4 ECTS credits

**Weeks:** 2

**Course Prerequisites:** There are no pre-requisites for the course. However, the interdisciplinary approach of the course requires teaming up various areas of expertise, specifically demography, sociology, economic and political science.

**Language Requirements:** None

### **Course Description:**

Health and well-being consequences of demographic changes are key challenges for research and innovation as they concern citizens' health and have enormous economic implications and innovation opportunities (with equitable access to prevention, treatment and care throughout the life cycle).

Recent social and economic developments within Europe and global pressures related to population trends magnify the relevance of health and well-being and its impact on socioeconomic dynamics, as well as the pressure that demographic changes such as population aging exert on health systems and social safety nets.

This course examines population health and well-being consequences of demographic changes from an interdisciplinary approach, including sociological, demographic, economic and political science, particularly in developed countries. Professors will pay attention to the links between these demographic changes and social and public policies.

This course provides a forum for students to explore contemporary issues in how demographic changes affect population health and well-being from both a theoretical and practical standpoint and using national and cross-national comparisons. Plus, the student will be involved in a novel discussion of ongoing controversies about the causes and effects of such demographic changes. The course will pay special attention to how health intersects with several sociodemographic (age, gender, ...), economic (education, social class, ...), and contextual (country, ...) factors. Finally, the main demographic indicators will be deeply explained and discussed.

### **Learning Objectives:**

At the end of the course, the student:

- Will have learnt about recent population dynamics and consequent social challenges

- Will understand the causes and mechanisms underlying health and healthy aging
- Will have received an introduction to the basic key demography concepts, implemented in a variety of disciplines, including Sociology, Demography, Economics and Political Sciences;
- Will be familiar with trends and mechanisms of health inequalities based on evidence from cross-country studies and its explanations;
- Will have discussed the policy implications of research evidence on health inequalities, with a special focus on preventive public health measures at local, national and international levels;
- Will have acquired survey knowledge of the current health and aging surveys, basic research methods and ethical implications involved in conducting scientific research.

### **Course Workload**

The course is divided into lectures, discussions, and field studies. Students should be prepared to read several scientific papers per week.

### **Methods of Instruction:**

Due to the nature of the topic, the course will invite students to develop their skills of critical thinking by understanding major theoretical, and policy debates on health and well-being consequences of demographic changes. Three-hour class sessions are normally divided into two-hour lecture and one-hour seminar.

The success of the course builds on the degree and quality of students' participation (undergraduate, graduate or postgraduate students). All enrolled students are expected to carefully consult with the required readings prior to the classes. All readings and class materials will be available on the course website (Aula Global). Assignments must be submitted through the course website.

### **Method of Assessment**

Grading is based on individual performance, via written assignments, and if possible group activities.

*Class participation: 20%*

Active participation in the class discussions is expected from all students.

Midterm Exam: 40 percent

Final Exam: 40 percent

Students will be given two essay questions pertaining to the material covered in class. They will be asked to write at most 2-page answer to each question.

### **Absence Policy**

Attending class is mandatory and will be monitored daily by professors. The impact of absences on the final grade is as follows:

<b>Absences</b>	<b>Penalization</b>
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Up to one (1) absences	No penalization.
Two (2) absences	1 point subtracted from final grade (on a 10 point scale)
Three (3) absences	The student receives an INCOMPLETE for the course

The BISS attendance policy does not distinguish between justified or unjustified absences. The student is deemed responsible to manage his/her absences.

Emergency situations (hospitalization, family emergency, etc.) will be analyzed on a case by case basis by the Academic Director of the UPF Barcelona International Summer School.

### **Course Contents:**

#### **Session 1 Course description and Introduction** (Monday, July 5<sup>th</sup>)

Syllabus, assessment and readings

Introduction to “World’s Population: major demographic trends”

- Demographic trends (aging, wellbeing, socioeconomic, gender and family)
- Public health relevance of the population change
- Locating data on population and health

Reading assignments and class discussion: see reference list

#### **Session 2 Aging: theories of mortality and morbidity** (Tuesday, July 6<sup>th</sup>)

Aging

- Theories on population change (demographic and epidemiologic transition).
- Major trends in life expectancy, (un)healthy life expectancy, and causes of death by sex and over time
- Compression and expansion of morbidity: impact of lifestyle, environmental, socio- economic and cultural factors (including institutional factors, such as characteristics of the health care system)

Case study: Life table

Reading assignments and class discussion: see reference list

#### **Session 3 Researching Health Inequalities in Later Life** (Wednesday, July 7<sup>th</sup>)

- Determinants and consequences on health
- Healthy Life Expectancy comparisons
- Contextual factors: The role of Welfare Regimes

Reading assignments and class discussion: see reference list

**Session 4 Quality of Life: Going beyond health** (Thursday, July 8<sup>th</sup>)

- Measuring health: subjective and objective indicators
- Active Aging
- Happiness, Life Satisfaction and well-being
- Chronological versus subjective age; feeling old

Reading assignments and class discussion: see reference list

**Session 5 Demography Data: quality and types** (Friday, July 9<sup>th</sup>)

- Sources of demographic data: censuses and registers
- Demographic and social surveys, from questionnaires construction, data reliability issues and on to analysis
- Data comparability and harmonization of various data sources

Reading assignments and class discussion: see recommended website list

**Session 6 Socio-economic aspects of health** (Monday, July 12<sup>th</sup>)

- Social determinants of health inequalities (education, employment status, income, etc.)
- Social selection perspective
- Social causation perspective
- Life course perspective

Case study: Life table by education ([EUROSTAT](#))

Reading assignments and class discussion: see reference list

**Session 7 Gender health inequalities perspective** (Tuesday, July 13<sup>th</sup>)

- The Gender perspective in the study of health inequalities
- The Gender revolution
- The male-female health-survival paradox
- The resource substitution theory

Reading assignments and class discussion: see reference list

**Session 8 Contextual aspects of health** (Wednesday, July 14<sup>th</sup>)

- Social gradients of health within developed countries and in rapidly developing countries: a new challenge
- Health inequalities and welfare regimes
- Economic recession effects on population

Case Study: Life tables by education in different years ([EUROSTAT](#))

Reading assignments and class discussion: see reference list

### **Session 9 The evolution of Family (Thursday, July 15<sup>th</sup>)**

- Partner selection-Marriage market (with whom I will marry...)
- Fertility (having children, childless, family policies, ...)
- New family forms (marital status, women's job trajectories, family policies, ...)
- The Second Demographic Transition

Case study: Calculation and interpretation of fertility indicators

Reading assignments and class discussion: see reference list

### **Session 10 Family & Health (Friday, July 16<sup>th</sup>)**

- Family as a social determinant of health (family events, trajectories, etc.)
- Family and well-being (how family events do affect individual well-being?)
- New male and female roles in families

Reading assignments and class discussion: see reference list

### **Recommended textbooks:**

- Decomposing Gaps in Healthy Life Expectancy (2020).  
[https://link.springer.com/chapter/10.1007/978-3-030-37668-0\\_7](https://link.springer.com/chapter/10.1007/978-3-030-37668-0_7)
- Demography of Aging. L. Martin and S. H. Preston, editors with introduction. National Academy Press. Washington, D.C. 1994. 411pp.
- C. Jagger, E.M. Crimmins, Y. Saito, R. Yokata, H. Van Oyen, J.M. Robine (Eds.). International Handbook of Health Expectancies. Springer; Dordrecht, Netherlands, 2019. (aquí hi ha el book chapter que et comenta el Sergi)
- R. Rogers and E. M. Crimmins (Eds). International Handbook of Adult Mortality, Springer; Dordrecht, Netherlands, 2011.
- S. Preston, P. Heuveline and M. Guillot. (2000) Demography: Measuring and Modeling Population Processes, <https://www.wiley.com/en-us/Demography+%3A+Measuring+and+Modeling+Population+Processes-p-9781557864512>
- E. M. Crimmins, S. H. Preston, and B. Cohen (Eds). International Differences in Mortality at Older Ages: Dimensions and Sources, Panel on Understanding Divergent Trends in Longevity in HighIncome Countries; National Research Council, 2010.
- J.M. Robine, C. Jagger, C. Mathers, E. M. Crimmins, and R. Suzman (Eds.), Determining Health Expectancies. John Wiley & Sons, Ltd.; West Sussex, England, 2003.

### **Recommended Websites:**

- World Health Organization: <http://www.who.int/en/>
- Global Health Observatory data: <http://www.who.int/gho/en/>

- Instituto Nacional de Estadística: <http://www.ine.es/>
- Institut d'Estadística de Catalunya: <https://www.idescat.cat/>
- Eurostat: <http://ec.europa.eu/eurostat>
- Human Mortality Database: <http://www.mortality.org/>
- Human Fertility Database: <http://www.humanfertility.org/>
- N-IUSSP: <http://www.niussp.org/>
- EUROHEX: <http://www.eurohex.eu/>
- Families and Societies: <http://www.familiesandsocieties.eu/>

### Recommended daily bibliography:

Students are encouraged to consult the following sources on their own.

#### Session 1

- Bongaarts, J. (2009). "Human Population growth and the demographic transition" *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364 (1532): 2985-2990  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2781829/>

#### Session 2

- Christensen, K., Doblhammer, G., Rau, R., & Vaupel, J. (2009). Ageing populations: the challenges ahead. *The Lancet*, 374(9696), 1196-1208. doi: 10.1016/S0140-6736(09)61460-4
- Mackenbach J Kunst A Cavelaars A Groenhof F Geurts. (1997). Socioeconomic inequalities in morbidity and mortality in western Europe, *J Health E, The Lancet*, vol: 349 pp: 1655-1659
- Oeppen J Vaupel J. (2002). Broken Limits to Life Expectancy. *Science*, vol: 296 (5570) pp: 1029-1031
- Sanderson, W. C., & Scherbov, S. (2013). The characteristics approach to the measurement of population aging. *Population and Development Review*, 39, 673-685.

#### Session 3

- Solé-Auró, A., Martín, U., and Domínguez, A. (2020). "Educational inequalities in healthy life expectancy among older people in Spain" *International Journal of Environmental Research and Public Health* (Q2), 17(10), 3558  
<https://doi.org/10.3390/ijerph17103558>.
- Fouweather, T., C. Gillies, P. Wohland, H. Van Oyen, W. Nusselder, J.M. Robine, E. Cambois, and C. Jagger. 2015. "Comparison of socio-economic indicators explaining inequalities in Healthy Life Years at age 50 in Europe: 2005 and 2010." *Eur J Public Health* (<http://dx.doi.org/10.1093/eurpub/ckv070>).
- Jagger C, Gillies C, Moscone F, Cambois E, Van Oyen H, Nusselder W, Robine JM, team. EHLEIS. 2008. Inequalities in Healthy life expectancies in EU25: a cross-national meta-regression analysis. *Lancet*, 9656 (372), p. 2124-2131.
- Solé-Auró, A. and Alcañiz, M. (2015) "Are we living longer but less healthy? Trends in mortality and morbidity in Catalonia (Spain), 1994-2011, *European Journal of Ageing* (Q2), 12(1):61-70.

#### Session 4

- Alcañiz, M. and Solé-Auró, A. (2018). “Feeling good in old age: factors explaining health-related quality of life” *Health and Quality of Life Outcomes*, 16(1):48.  
<https://www.ncbi.nlm.nih.gov/pubmed/29534708>
- Choi, N. G., DiNitto, D. M., & Kim, J. (2014). Discrepancy between chronological age and felt age: Age group difference in objective and subjective health as correlates. *Journal of Aging and Health*, 26, 458-473.
- Solé-Auró, A., and Lozano, M. (2019). “Inequalities in Longevity by Education Level in Spain: A Life Satisfaction Approach”, *Social Indicators Research*, 144(2), 729-744.
- Solé-Auró, A., Jasilionis, D., Li, P., and Oksuzyan, A. (2018) “Do women in Europe live longer and happier lives than men?” *European Journal of Public Health*, 28(5): 847-852.
- World Health Organization. (2002). Active ageing: A policy framework. Geneva, Switzerland: Author.
- Zimmermann, A. C., & Easterlin, R. A. (2006). Happily ever after? Cohabitation, marriage, divorce and happiness in Germany. *Population and Development Review*, 32, 511–528.

### **Session 5**

- Recommended website reference list

### **Session 6**

- World Health Organization. (2010). A conceptual framework for action on the social determinants of health.

### **Session 7**

- Oksuzyan, A., Gumà, J., & Doblhammer, G. (2018). Sex differences in health and survival. In *A demographic perspective on gender, family and health in Europe* (pp. 65-100). Springer, Cham.
- Goldscheider F, Bernhardt E, Lappegård T. The gender revolution: A framework for understanding changing family and demographic behavior. *Population and Development Review*. 2015; 41: 207-239.

### **Session 8**

- Marmot, M. (2015). The health gap: the challenge of an unequal world. *The Lancet*, 386(10011), 2442-2444.
- Gumà, J., Solé-Auró, A., & Arpino, B. (2019). Examining social determinants of health: the role of education, household arrangements and country groups by gender. *BMC public health*, 19(1), 1-9.

### **Session 9**

- Oláh, L. S., Kotowska, I. E., & Richter, R. (2018). The new roles of men and women and implications for families and societies. In *A Demographic perspective on gender, family and health in Europe* (pp. 41-64). Springer, Cham
- Luci-Greulich, A., & Thévenon, O. (2013). The impact of family policies on fertility trends in developed countries. *European Journal of Population/Revue européenne de Démographie*, 29(4), 387-416.
- Margolis, R., & Myrskylä, M. (2011). A global perspective on happiness and fertility. *Population and Development Review*, 37, 29–56.

***Session 10***

- Hansen T. Parenthood and Happiness: A Review of Folk Theories versus Empirical Evidence. *Social Indicators Research*. 2012; 108:29–64.
- Zimmermann, A. C., & Easterlin, R. A. (2006). Happily ever after? Cohabitation, marriage, divorce and happiness in Germany. *Population and Development Review*, 32, 511–528.