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**A new Trend in Life Expectancy in  
the Advanced Countries?  
Which Causes? Who is affected?  
Why?**

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# An Outline

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## **The topic: trend in life expectancy in advanced countries**

- The focus is on middle classes
  - We consider trend for decades (starting since the 90s, excluding the effects of the 2008-2013 global crisis)
- ✓ **Discussion on USA and some Northern European countries (Finland and Denmark) data**
  - ✓ **Conclusions**
  - ✓ **Literature**

# QoL at the global level

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Globally **the QoL is bettering** (WHO 2016)  
particularly in the South/emerging countries:

- reducing poverty (World Bank 2016);
- increasing consumption; emerging a middle class
- bettering of health & life expectancy

➤ **But in the West ...**

# The worsening of living conditions and lifestyle <sup>(1/2)</sup>

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In the West (particularly USA and some Northern European countries) living conditions and lifestyle are worsening.

The trend is connected not only to the traditional socio-economic differences (social exclusion, working poverty etc.)

# The worsening of living conditions and lifestyle (2/2)

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Other structural factors affect the middle classes:

- the income distribution since the 90s (Piketty 2013)
- the increasing difficulties for baby boom generation to get job and earning conditions corresponding to high education level
- worsening working a life conditions (risky behavior and bad lifestyle)

The social policies; their relevance

# Work-related stress consequences in advanced countries (1/2)

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- Work-related stress consequences can be:
- **physiological** (impacting cardiovascular, respiratory, musculoskeletal, immunological systems);
- **psychological** (anger, anxiety, irritation, depression, sleeping problems, decreased self-esteem and perception of the social world as hostile);
- **behavioural** (declining performance, alcohol and cigarette dependency, accidents, absences) (EASHW 2009, 14ff.).

# Work-related stress consequences in advanced countries (2/2)

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- Stress factors connected to workers' sector of activity are also linked to *relationships with clients*.
- This situation is prevalent in the **education, health, public administration** sectors and **defense industries**.

# Evidence # 1: US middle aged white non –Hispanic

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**All-cause mortality of middle-aged (age 45–54) white non-Hispanic ♀♂ in USA (Case & Danton):**

- all-cause mortality has increased between 1999 and 2013;
- increasing distress among whites in midlife after the late 1990s.
- **Since 1978 to 1998**, the mortality rate for US whites aged 45–54 and in the other industrialized countries **fell** by 2% per year on average,
- **After 1998**, US white non-Hispanic **mortality rose** by half a percent a year.
- In contrast, in **other rich countries'** **mortality** rates continued to **decline** by 2% a year.

# Changes in mortality rates 1999-2013

## ages 45–54

(2013 mortality rates per 100,000)

Case & Danton 2015, p. 3

		All-cause mortality	All external causes	Poisonings	Intentional self-harm	Transport accident	Liver chronic diseases
White non Hispanic		33,9	32,8	22,2	9,5	-0,9	5,3
Black non-Hispanics		-214,8	-6	3,7	0,9	-4,3	-9,5
Hispanics		-63,6	-2,9	4,3	0,2	-4,9	-3,5
White non Hispanic by education class							
	less than high school or HS degree only	134,4	68,7	44,3	17	1,77	12,2
	Some college no BA	-3,33	18,9	14,6	6,03	-1,9	3,03
	BA degree or more	-57	3,57	4,64	3,32	-3,63	-0,77

# Three causes of death

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**Three causes of death account for mortality reversal among US white non-Hispanics:**

- suicide,
- drug and alcohol poisoning
- chronic liver diseases and cirrhosis.

Although the epidemic of pain, suicide, and drug overdoses preceded the financial crisis, *ties to economic insecurity are possible.*

# US health disadvantage

(Other Authors)

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- Avendano & Kawachi, 2014: Americans (♀♂) higher mortality and morbidity than other high-income countries
- Murray *et al.* **Eight Americas**, drafted by :  
mortality disparities across races, counties, and race-counties in the United States Social and demographic explanations (racial, ethnic and socioeconomic disparities in health)

# Welfare relevance in US

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- **Public policies might influence health and mortality** thanks to measures in favor of
  - early childhood,
  - education,
  - employment,
  - income support and redistribution
  - housing
- **Role of pensions: Defined-Benefit vs. Financial Markets**
  - USA  $\neq$  Europe US pension plans associated to stock market risk (financial insecurity). In Europe, defined-benefit pensions are the norm.

# Evidence #2: Finland (1/2)

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- The association between income and mortality (Tarkiainen *et al.* 2012):
- Male population at age of 35; the life expectancy gap between top and bottom quintiles amounts **2007** at **12.5** years;
- In **1988** the life expectancy gap was **7.5** years (same male quintiles same age)

Between 1988-1991 and 2004-2007 the mortality rate ratio of the **lowest quintile** increased from 2.80 to 5.16 among the men and from 2.17 to 4.23 among the women.

# Evidence #2: Finland (2/2)

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- Increasing **income disparity** has harmful effects in terms of mortality, particularly affecting the lowest income quintile (less educated, lowest socioeconomic groups).
- Increasing **social polarisation** since the late 1980s as a result of increasing job insecurity, long-term unemployment and social exclusion.
- Socioeconomic characteristics detrimental to health may have harmful effects on mortality in the lowest income group and may have increased over time

# Evidence # 3: Denmark (1/2)

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- «**The unfavourable trend in life expectancy in Denmark**». (Knud *et al*, 2000):
- The 1990s *stagnating life expectancy* in Denmark in comparison with other Western European countries (Osler 1998).
- *Causes*: smoking, alcohol and social environment and increasing relative poverty (increasing proportion of the population living in poverty; poverty is related to a less rapid improvement in life expectancy (Wilkinson 1992)

# Evidence #3: Denmark, an exemplary Welfare State (2/2)

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- The stagnation in life expectancy in Denmark could also be related to the:
- economic recession, increase in unemployment and poorer access to social support
- health care system (promoting measures against tobacco and alcohol consumption) and unemployment insurance have to be more efficiently organized and regulated
- **All that in spite of the fact that Denmark**
- is one of the richest countries in the world
- the tax system aims at narrow income differences
- the Welfare State is “marvelous” (*from a “Mediterranean perspective”*)

# Discussion

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- The trend is affecting **professional and non manual workers** because :
- the economic & working conditions are worsening in comparison with the past (not with other contemporary social groups).
- The pressure of working conditions leads to stress and risky behaviour.

When **poor social strata** are affected by unemployment or working poverty → worsening of living conditions → relevance of Welfare

# Conclusions

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- A complex explanation on influences the life expectancy
- The key elements:
  - different social strata
  - economic crisis, labour market difficulties
  - Lifestyle and risky behaviour
  - Social policies play a relevant role as preventing factors of worsening of standard of living

# Differences between USA and Europe. And other problems

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- In **USA** a dramatic polarization need new Welfare policies
- In **Europe** the question is *Which kind of Welfare systems?*
- **Different trend** in life expectancy in spite of Welfare systems
- *Final questions: Is a well organized and efficient Welfare systems sufficient? Or that is also a problem of social cohesion/integration (Durkheim revisited)?*



*Thank you for your attention*  
*Wir bedanken uns für Ihre Aufmerksamkeit*

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# References

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- Allebeck P., 2013, *Health effects of the crisis: challenges for science and policy*, European Journal of Public Health, Vol. 23, No. 5, 721
- Avendano M., I. Kawachi, *Why do Americans have shorter life expectancy and worse health than people in other high-income countries?*, Annu Rev Public Health, 35, pp. 307–325. doi:10.1146/annurev-publhealth-032013-182411, .
- Brønnum-Hansen H. , M. Baadsgaard, 2007, *Increasing social inequality in life expectancy in Denmark*, European Journal of Public Health, Vol. 17, No. 6, 585–586
- Case A, Deaton A., 2014, *Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century*, [www.pnas.org/cgi/doi/10.1073/pnas.1518393112](http://www.pnas.org/cgi/doi/10.1073/pnas.1518393112); <http://www.independent.co.uk/life-style/health-and-families/health-news/a-stressful-workplace-could-take-33-years-off-your-life-expectancy-study-finds-a6713011.html>  
<http://www.journals.uchicago.edu/doi/abs/10.1086/686698>
- Chang SS, Stuckler D, Yip P, Gunnell D. *Impact of 2008 global economic crisis on suicide: time trend study in 54 countries*. BMJ 2013;347:f5239. doi:10.1136/bmj.f5239.
- Durkheim E., 1897, 1960, *Le Suicide, étude sociologique*, PUF, Paris.
- European Agency for Safety and Health at Work (EASHW), 2009, *OSH in figures: stress at work — facts and figures*, <http://osha.europa.eu>
- EASHW, 2014, *Annual Report 2014*, <http://osha.europa.eu>
- Harry P.A. Van De Water, Hendriek C. Boshuizen, Rom J.M. Perenboom, 1996, *Health expectancy in the Netherlands 1983-1990*,
- ILO 2010, *Emerging risks and new patterns of prevention in a changing world of work*, [http://www.ilo.org/public/portugue/region/eurpro/lisbon/pdf/28abril\\_10\\_en.pdf](http://www.ilo.org/public/portugue/region/eurpro/lisbon/pdf/28abril_10_en.pdf)
- Istat, 2016, *Rapporto annuale*, [www.istat.it](http://www.istat.it)

# References

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- Knud J., P. Bjerregaard, M. Madsen, 2000, *Mortality and life expectancy in Denmark and in other European countries. What is happening to middle-aged Danes?*, in European Journal Of Public Health Vol. 10 2000 No. 2
- Lasse T., P. Martikainen, M. Laaksonen, 2013, *The changing relationship between income and mortality in Finland, 1988-2007*, Journal Epidemiol Community Health; 67: 21-27. doi: 10.1136 / Jech-2012-201097
- Mcisaac S. J., R. G. Wilkinson ', 1997, *Income Distribution and Cause-Specific Mortality*, European Journal Of Public Health Vol. 7 No. 1, pp. 45-53
- Murray CJ, Kulkarni S, Ezzati M. *Eight Americas: new perspectives on U.S. health disparities*. Am J Prev Med. 2005; 29:4–10. [PubMed: 16389119] 63. Murray CJ, Kulkarni SC, Michaud C, Tomijima N, Bulzacchelli MT, et al. *Eight Americas: investigating mortality disparities across races, counties, and race-counties in the United States*, in PLoS Med. 2006; 3:e260. [PubMed: 16968116]
- Niedzwiedz C.L., Srinivasa Vittal Katikireddi<sup>1,2</sup>, Jill P. Pell<sup>1</sup>, Richard Mitchell, 2014, *Socioeconomic inequalities in the quality of life of older Europeans in different welfare regimes*, in European Journal of Public Health, Vol. 24, No. 3, 364–370
- Osler M., 1998 *Why has health in Denmark failed to improve?*, in European Journal Of Public Health
- Piketty T., 2013, *Le Capital au XXIe siècle*, Éditions du Seuil, Paris.
- Ruhm C. , 2015, *Health effects of economic crisis*, National Bureau of Economic Research, working paper 21604.
- Tapia Granados JA, Diez Roux AV., 2009, *Life and death during the Great Depression*, Proc Natl Acad Sci USA;106:17290-5. doi:10.1073/pnas.0904491106.
- Taylor C. J., 2016, “*Relational by Nature*”? *Men and Women Do Not Differ in Physiological Response to Social Stressors Faced by Token Women*, in American Journal of Sociology 122, no. 1: -.DOI: 10.1086/686698
- Thomson S, Figueras J, Evetovits T, et al, eds., 2015, *Economic crisis, health systems and health in Europe: impact and implications for policy*, Open University Pres.
- WHO, 2015, *World Health Statistics* , www.who.org