

# Reducing inequalities in health through understanding demographic transitions and work conditions

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# Socio-demographic Changes



More Women in the Workforce



More Dual-Earner Couples

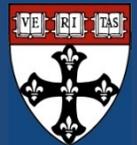
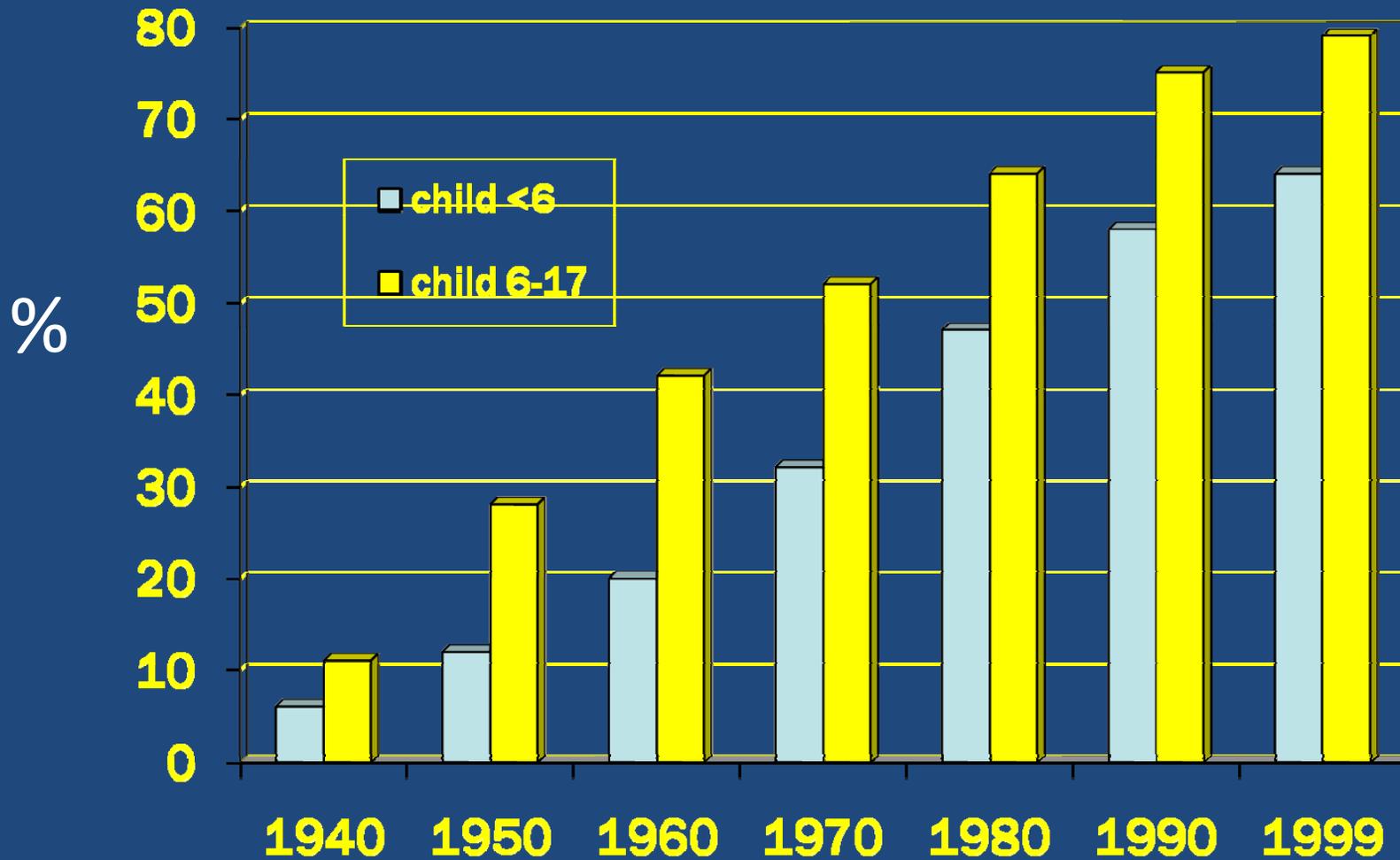


More Older Workers



More Diversity in the Workforce

# Demographic Trends in U.S.: Women in Labor Force with Young Children, 1940-2000

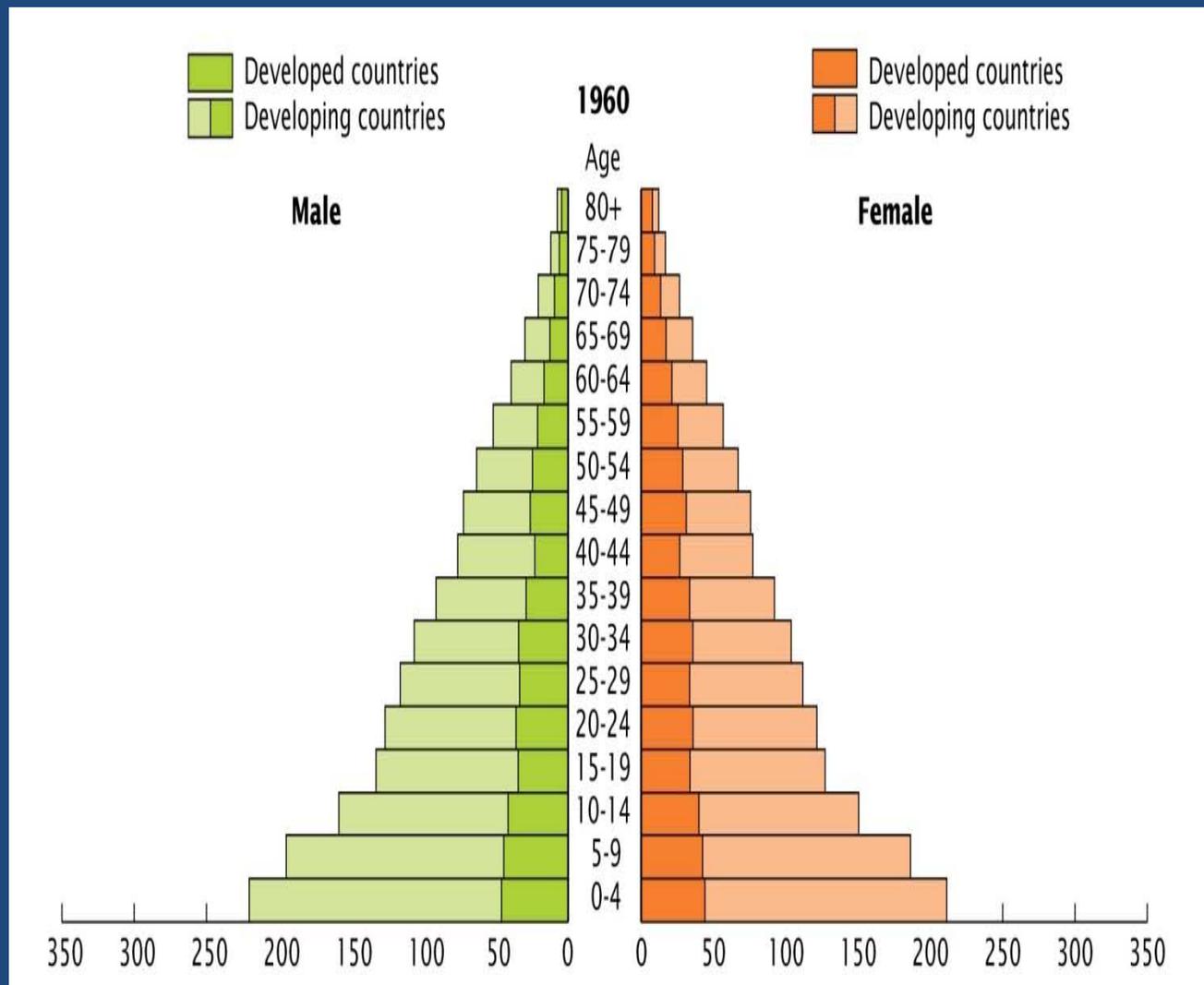




Low fertility and increases in life expectancy lead to continued population growth around the world..

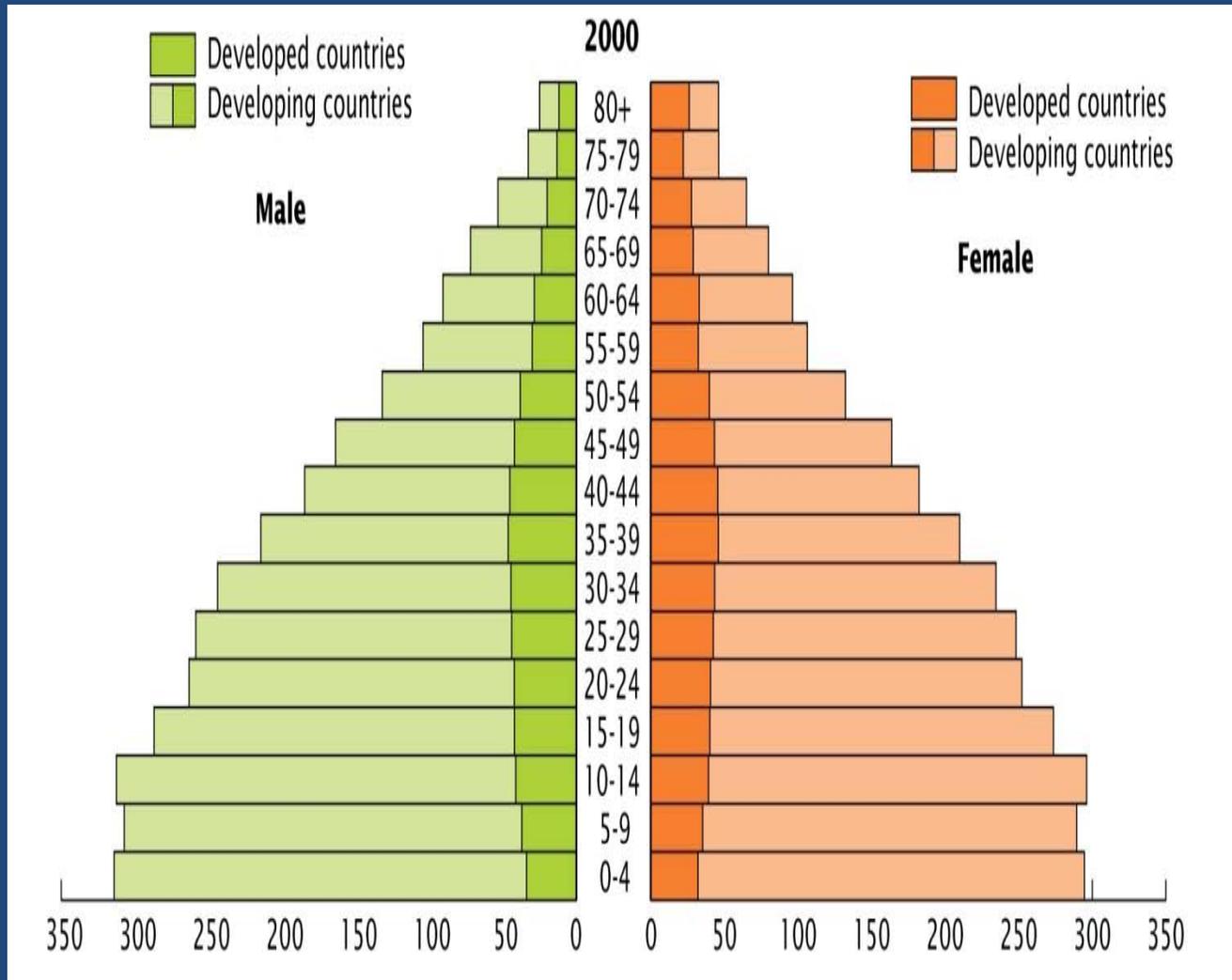


# Population in Developed vs. Developing Countries by Age and Sex (1960)



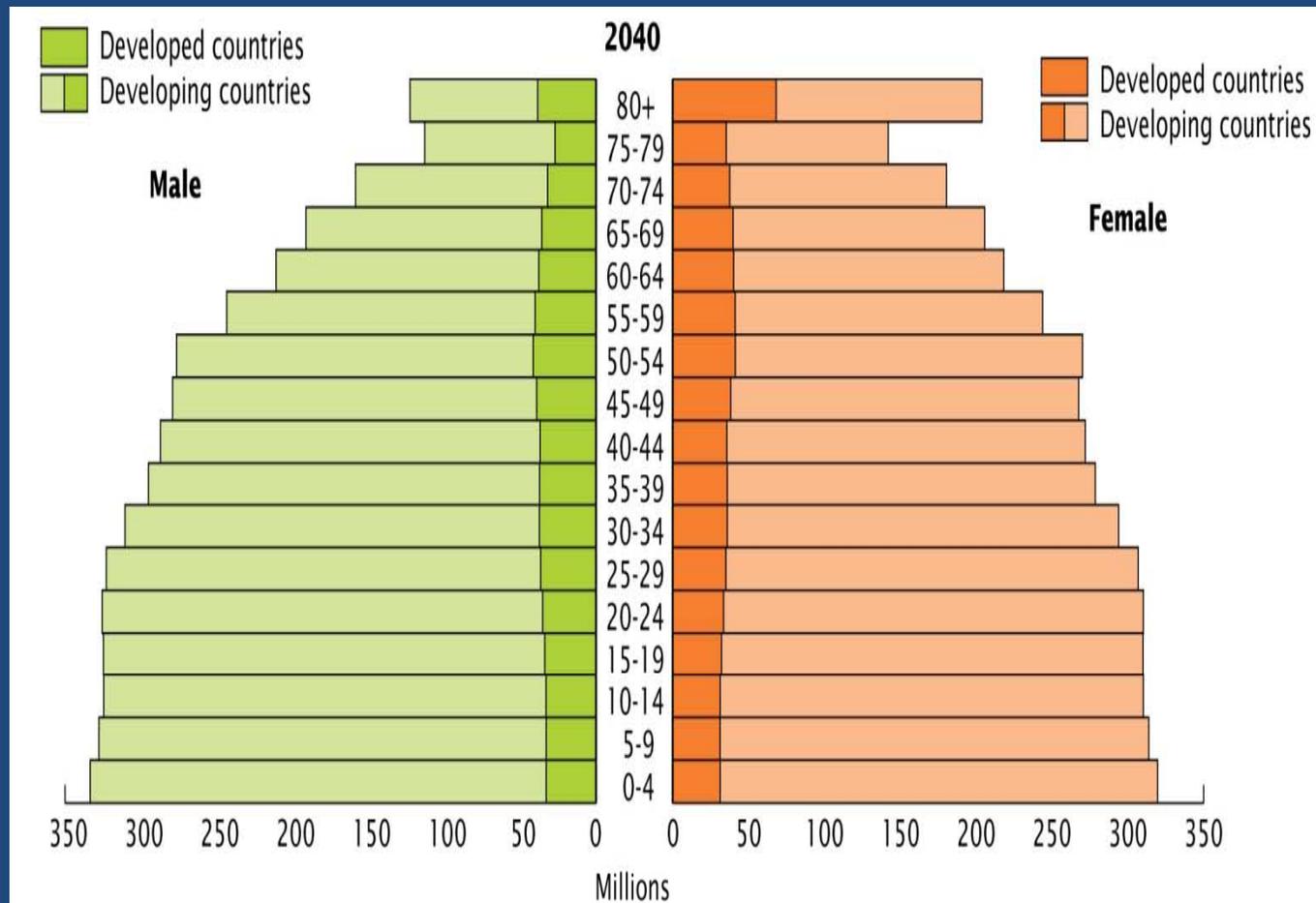


## Population in Developed vs. Developing Countries by Age and Sex (2000)





# Population in Developed vs. Developing Countries by Age and Sex (2040)



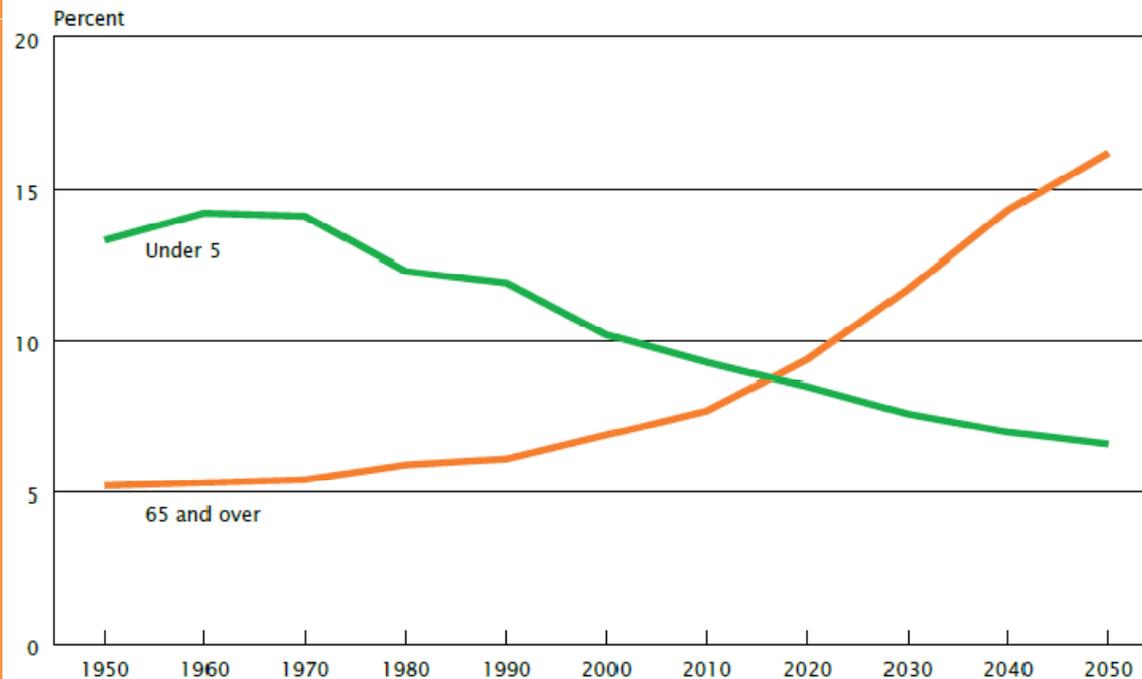
Sources: United Nations Department of Economic and Social Affairs, 2007b; and U.S. Census Bureau, International Data Base, accessed on December 28, 2007.

And demographic changes lead to changes in the structure of societies



# Young Children and Older People as Percentage of Global Population (1950 to 2050)

Figure 2-1.  
**Young Children and Older People as a Percentage of Global Population:  
1950 to 2050**



Source: United Nations Department of Economic and Social Affairs, 2007b.

# Demographic trends: racial and ethnic diversity (% of population)

U.S. Census Bureau. "U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin",

Racial/ethnic group	2000	2030	2050
White (alone)	69	57.5	50
Black (alone)	12.7	13.9	14.6
Hispanic (all races)	12.6	20.1	24.4
Asian (alone)	3.8	6.2	8

And throughout the world, women are increasingly in the paid labor force



# What would failure look like?

- Rising inequality
- Fragile families and communities
- New urban areas that can't catch up quickly
- Environmental consequences
- Social exclusion and “dis- integration”
- Increased conflict

# Inequalities in health across industrialized countries in Europe and US

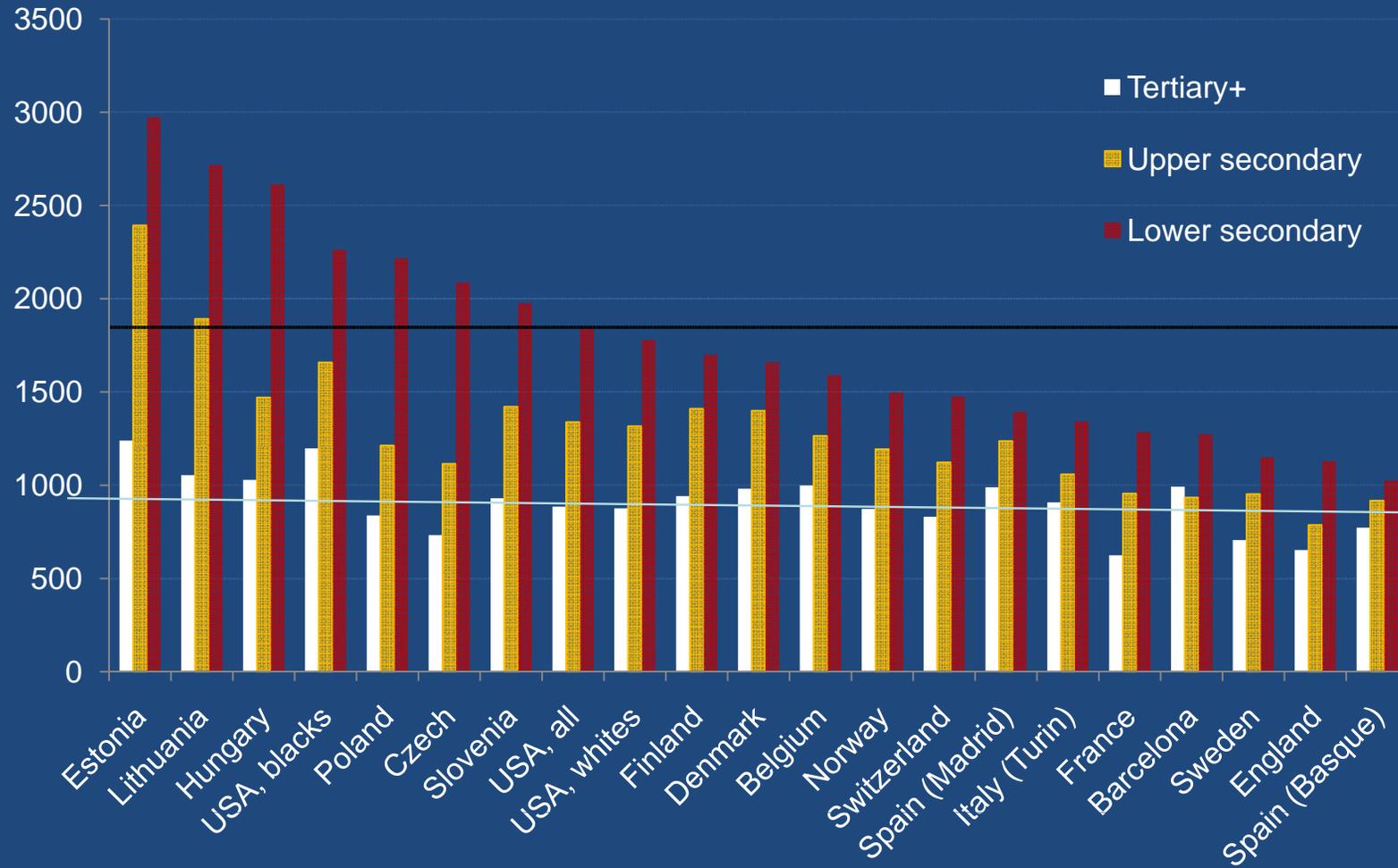
# Data United States

- Mortality follow-up from five waves (1989-1993) of the National Health Interview Survey (NHIS)
- Nationally representative household survey of US non-institutionalised population
- Mortality follow-up until 31<sup>st</sup> December 2002
- Ages: men and women 30-74 at base-line
- Separate analyses by gender and race
- Final sample was 286,759 individuals ( interviewed between 1989-1993 and mortality through 2002)

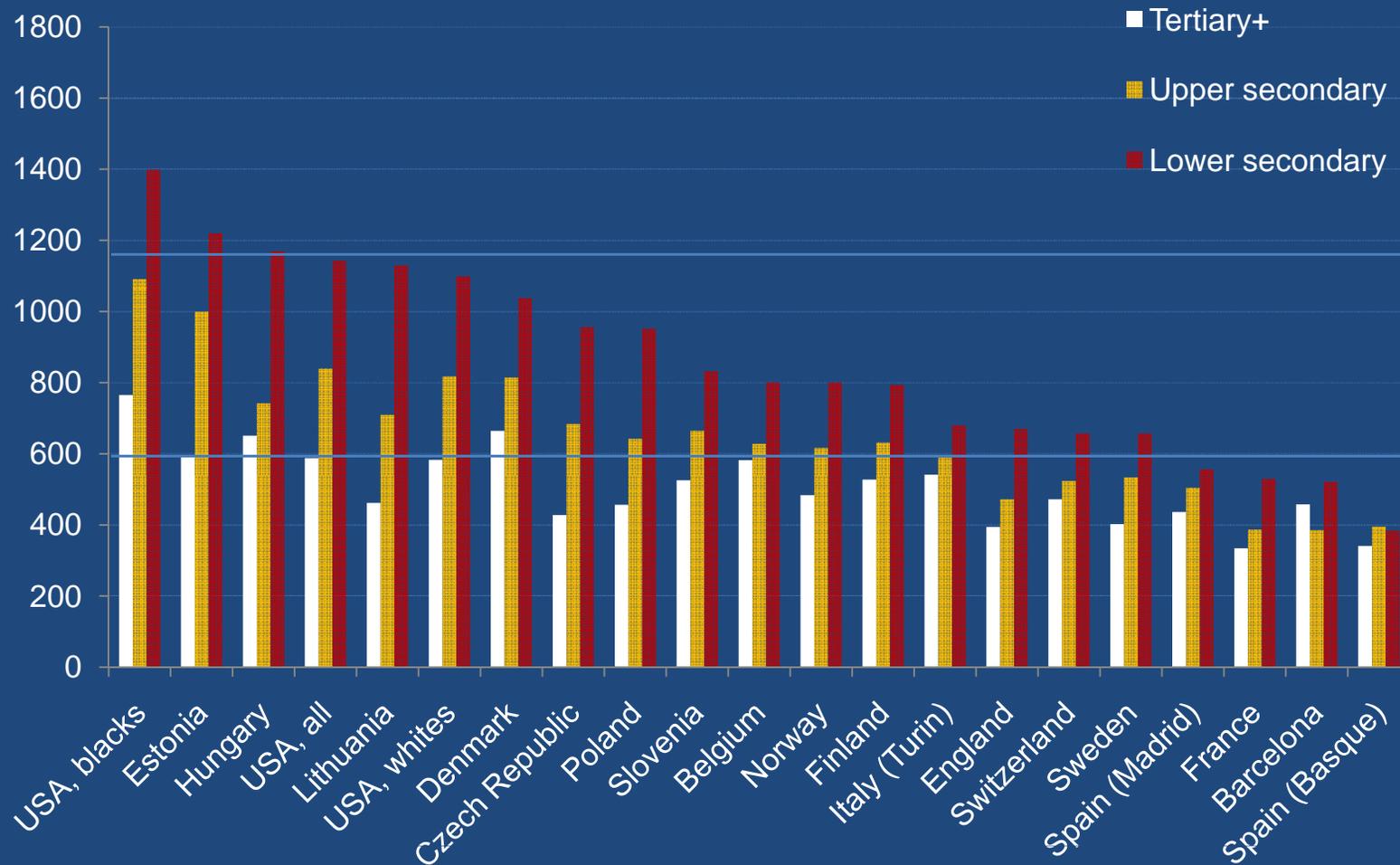
## Data Europe

- Data on mortality according to age, sex, educational level, and cause of death from mortality registries linked to national or regional census in 16 countries.
- Individuals enumerated in the early 1990's and followed-up for approx. 5-10 years for mortality through registries
- Ages: men and women 30-74 years at baseline
- Separate analyses by gender

# Mortality rate per 100,000 by education, men



# Mortality rate (per 100,000) by education, women



# Interpretation

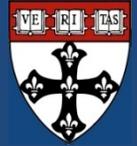
- Inequalities in mortality by education in the US tend to be a little larger than in most Western-European countries
- US excess mortality exists at all levels of educational attainment, but tends to be larger for lower educational groups
- This analysis provides some support for the hypothesis that higher mortality in the US is to some extent due to larger educational inequalities in mortality
- The effect of larger educational inequalities in mortality in the US is partly compensated by the larger proportion of the population being more highly educated

## Why would the US have larger inequalities in mortality than many European countries?

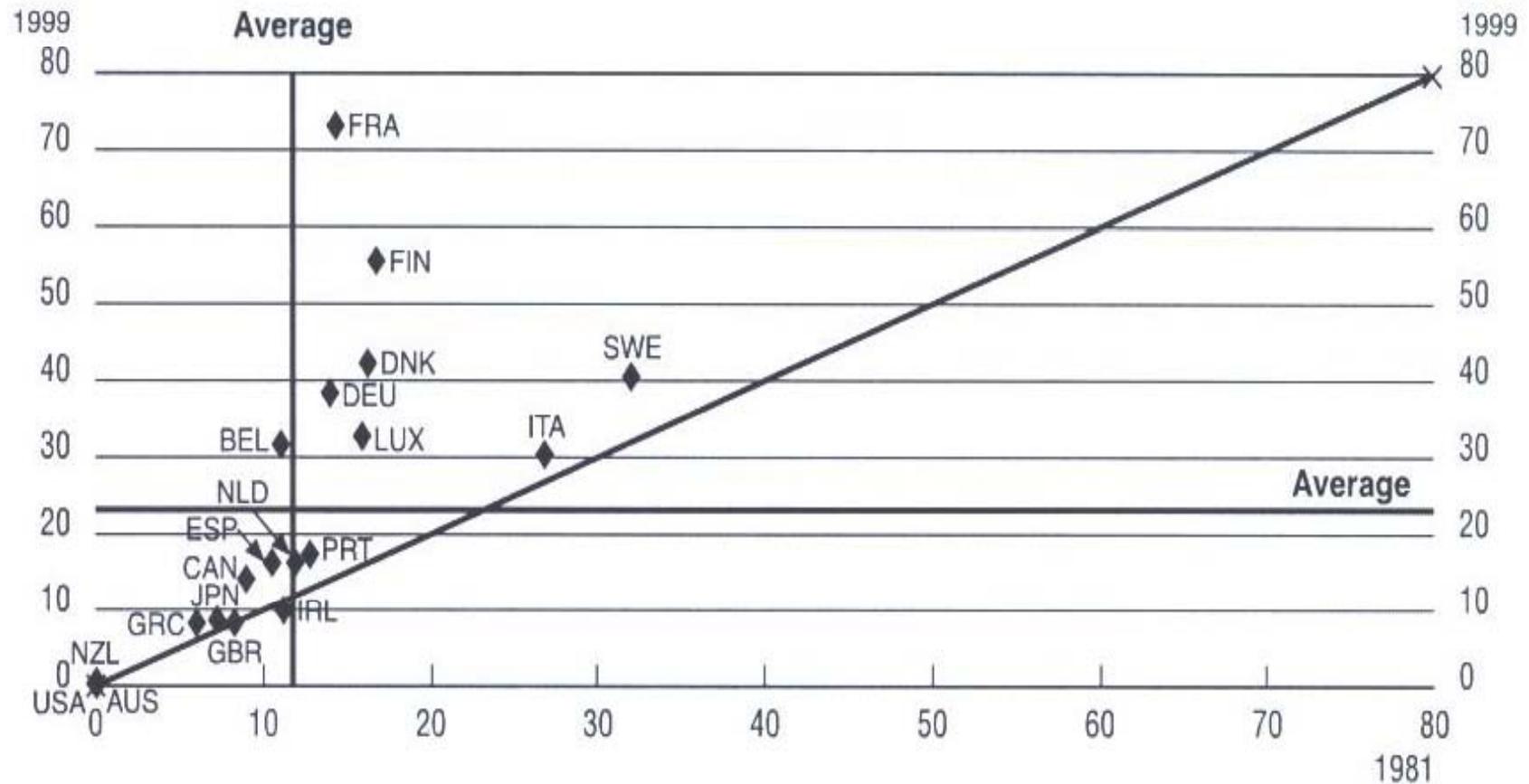
- Larger income inequalities in US, European tax systems are more progressive, European social security programs are more generous and reach a larger share of citizens (esp West)
- Health care access is close to universal in Europe, about 41 million Americans are uninsured, many European health care systems have strong focus on primary care
- Many European countries have social policies (housing, employment, urban planning, ...) designed to compensate poverty, spatial segregation more pervasive in US

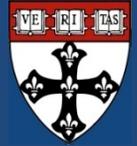
# High demands, low control and low support create low population health and increase inequality

- Women joined the labor force and maintained high fertility in the US from the 1960's on
- US has minimal social protection policies related to work family issues, welfare,
- Many workers in the US have low control over work hours, vacation etc
- Families live far apart, informal support difficult

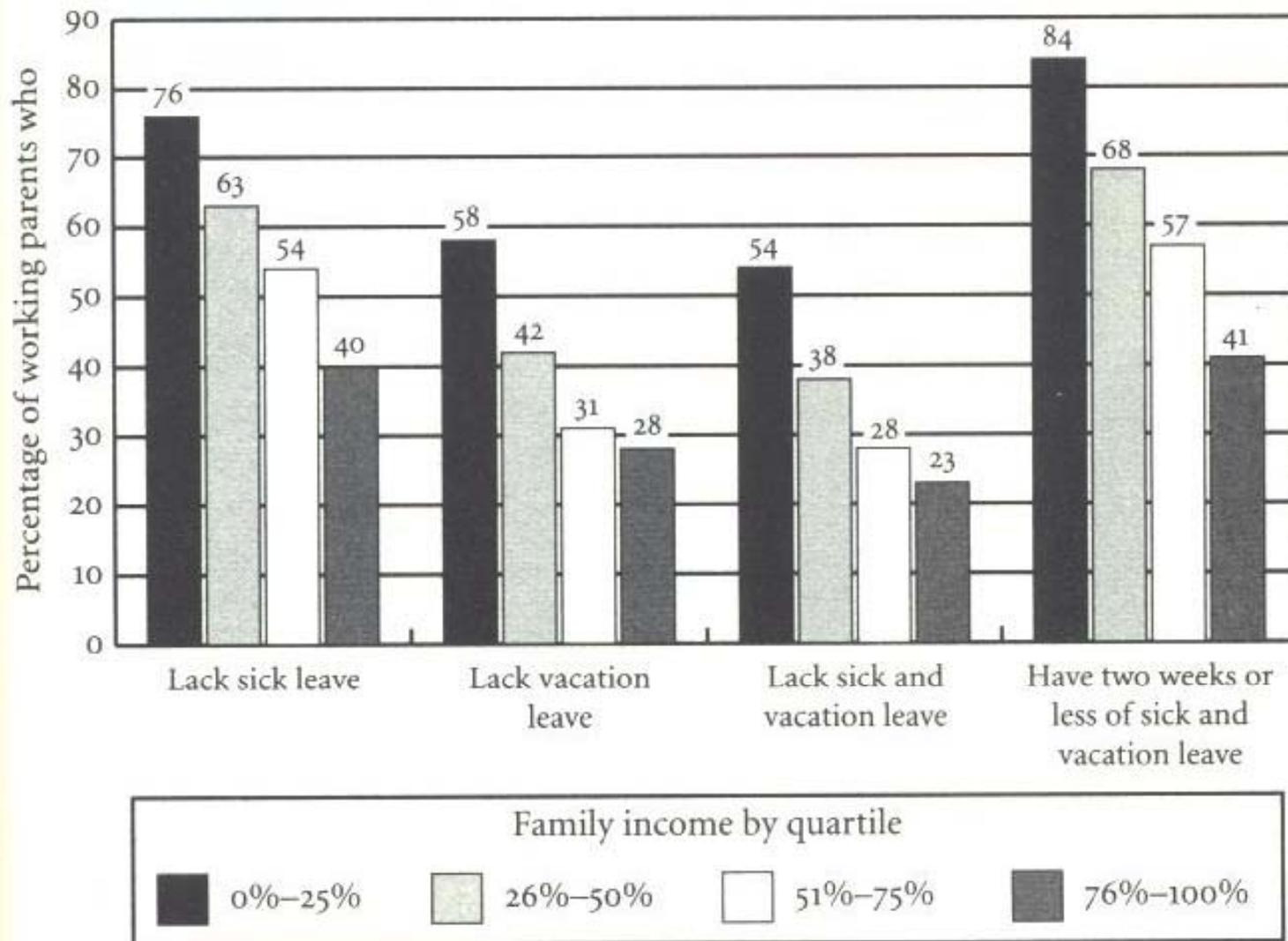


# Weeks of paid parental leave, 1981-1999





# The Widening Gap in flexibility



Need to create policies that  
maintain families and labor force  
participation,  
Need policies that are a win win for  
old and young



# The Health Impact of Work-Family Demands Among employees in long term care

Berkman et al. J of Occupational and Health Psychology, 2010.

# Study Design and measures:

- Surveyed low wage workers in long term care in MA
- Interviewed mid-level managers
- **Managers:**
- “Openness” of managers to help/adjust for employees work family needs (e.g., schedules)
- “Creativity” of managers in applying current policies
- **Employees:**
- CVD risk: blood pressure, cholesterol, body mass, glyc hemoglobin, tobacco consumption & sleep duration



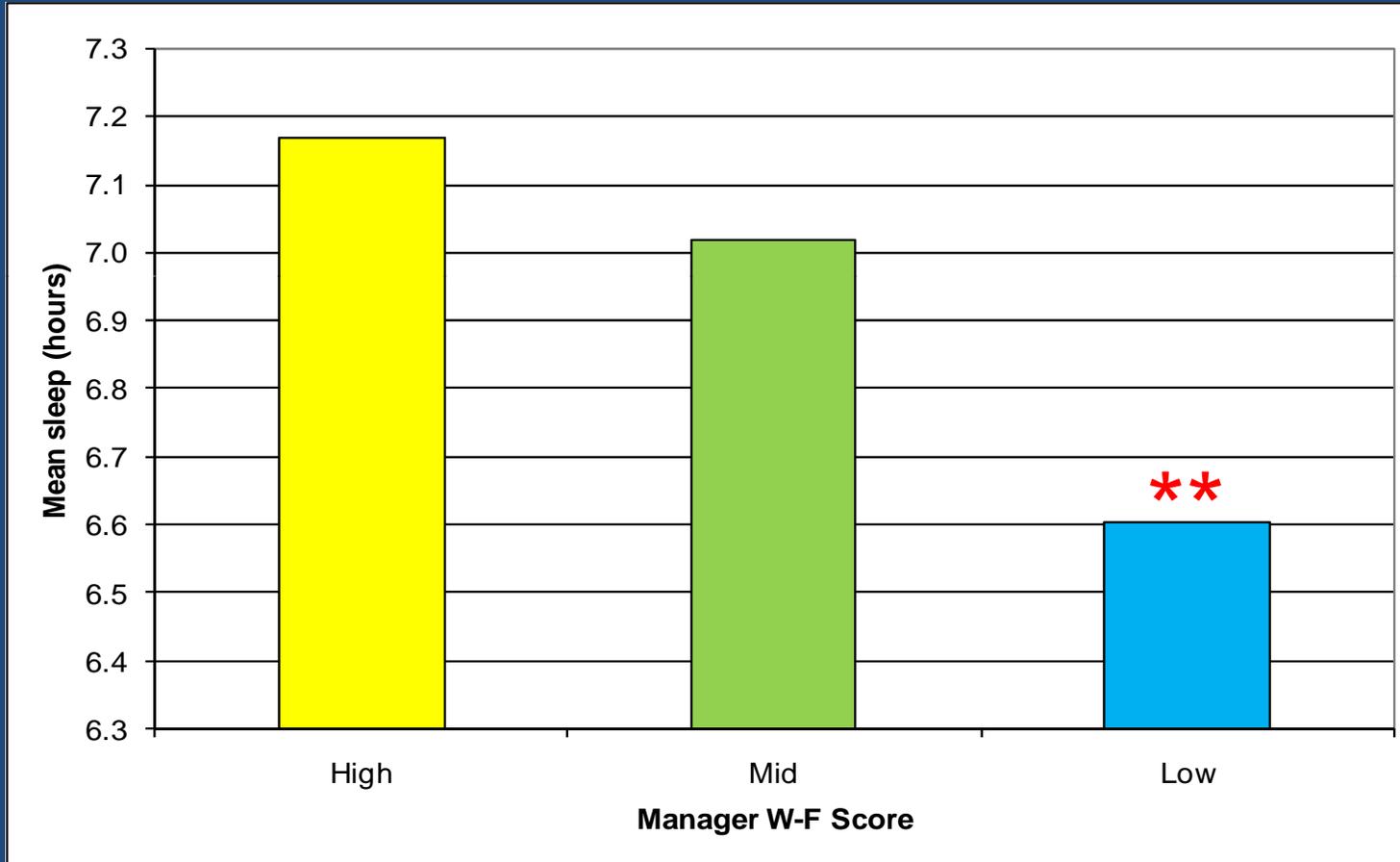
# Manager W-F Score and Odds of CHD risk $\geq 2$



Adjusted for age, gender, race/ethnicity, education, hourly wage, worksite  
n=393

\*\*  $p < 0.10$   
\*  $p < 0.05$

# Manager W-F Score and Sleep Duration



Adjusted for age, gender, race/ethnicity, education, hourly wage, worksite  
n=321

\*  $p < 0.10$   
\*\*  $p < 0.05$

# The Work Family and Health Network: Intervention to improve employee, family and workplace health



- Two industries
- 3000 employees, and 800 families
- Intervention to improve employee flexibility and job control and supervisor support
- Outcomes: individual, family and work org
- Intervention phase: 2009-2014
- NICHD, NIA, NIOSH, OBSSR, Adm for Children and Families, W.T.Grant Foundation

