

# Digital Economy e gender gap: siamo pronti all'appuntamento con l'Agenda 2030?

Valeria Caso

European Stroke Organisation



Gender differences

# The Mars and Venus question



A variation in the cognitive abilities of the two sexes may be more about social development than gender stereotypes

Aug 2nd 2014 | From the print edition



# WORLD VIEW

*A personal take on events*

LINDA A. CICERO/STANFORD NEWS SERVICE



## Scientific research must take gender into account

*From car design to drug discovery, the failure to acknowledge sex differences can be costly and even lethal, argues Londa Schiebinger.*



ILLUSTRATION BY KATIE SCOTT

# NIH to balance sex in cell and animal studies

**Janine A. Clayton** and **Francis S. Collins** unveil policies to ensure that preclinical research funded by the US National Institutes of Health considers females and males.

# Translational Implications

- In 1993, the NIH Revitalization Act required the inclusion of women in NIH-funded clinical research.
- However inclusion of women is not required at phases 1 and 2 of NIH-funded human subject trials when critical safety and dosage issues are addressed (Ambien)
- 80% of the drugs taken off the market between 1997 and 2000 “had disproportionately adverse effects on women”
- Call for Action for “Sex Balancing” in clinical and now pre-clinical studies

# Preclinical studies

- "The over-reliance on male animals and cells in preclinical research obscures key sex differences that could guide clinical studies"
- "And it might be harmful: women experience higher rates of adverse drug reactions than men do."

# Stroke incidence, prevalence and mortality in women worldwide

**Valentina Arnao<sup>1</sup>, Monica Acciarresi<sup>2</sup>, Elisabetta Cittadini<sup>3</sup>  
and Valeria Caso<sup>2</sup>**

International Journal of Stroke  
2016, Vol. 11(3) 287–301  
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DOI: 10.1177/1747493016632245  
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For the 1 and 2 stages, reliable registries and health certification are lacking...women were unlikely to be admitted to hospital.

In the third stage, specifically for Eastern Europe (post-socialist countries), the burden from stroke in women was on the rise

Fourth stage, despite an aging population, decreases in stroke incidence, prevalence and mortality have been observed

These trends for women were less pronounced for minorities suggesting a “gender-gap” regarding access to treatment and care.

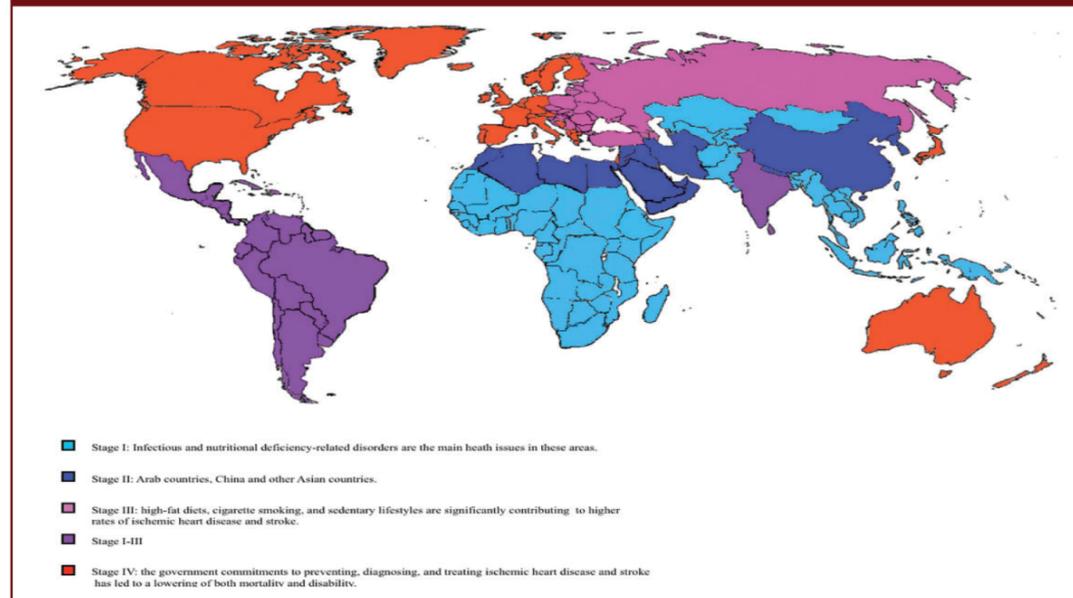
## Stroke incidence, prevalence and mortality in women worldwide

Valentina Arnao<sup>1</sup>, Monica Acciarresi<sup>2</sup>, Elisabetta Cittadini<sup>3</sup>  
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Figure 1. Countries divided in stages according to epidemiologic transition theory.<sup>6</sup>



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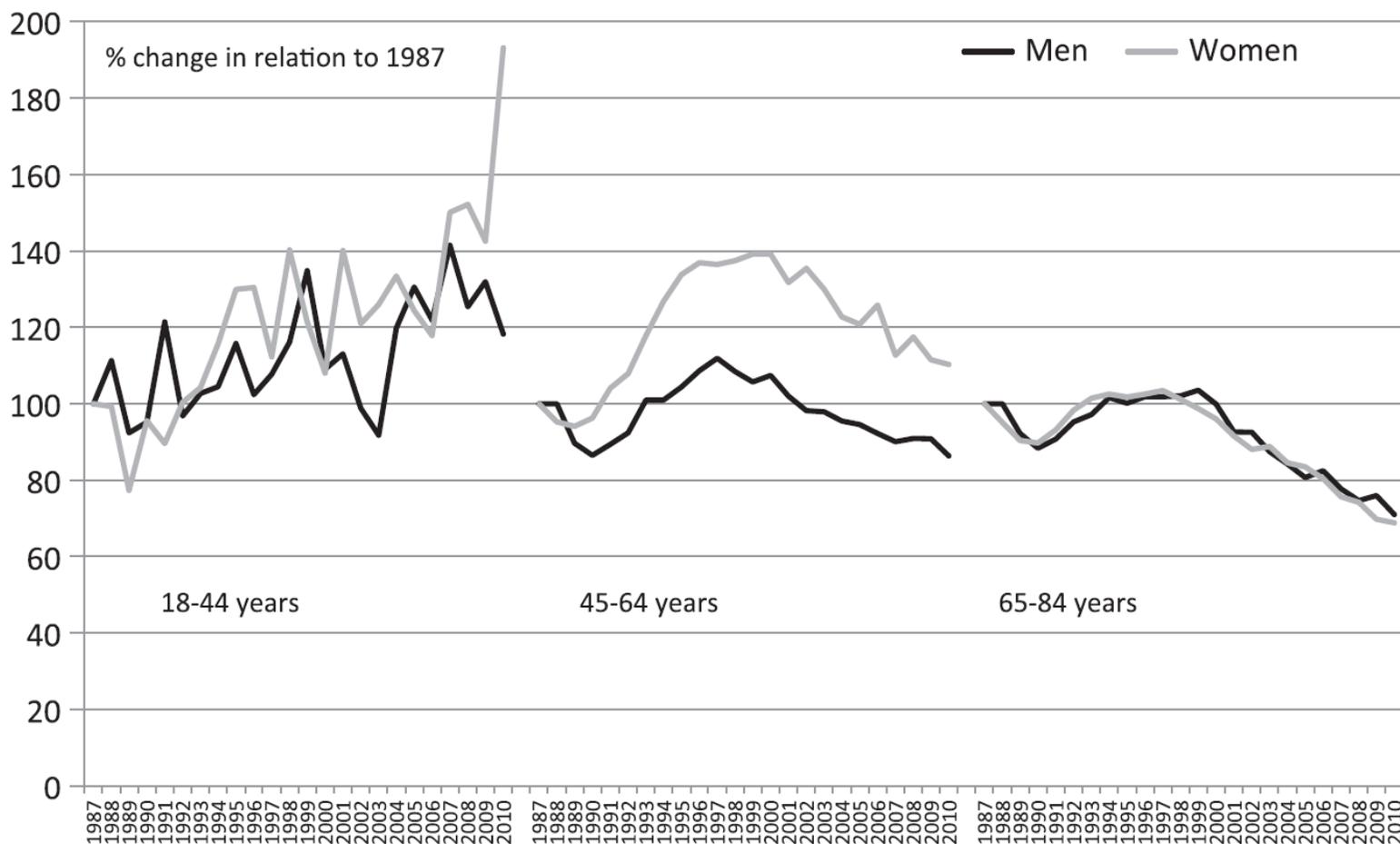
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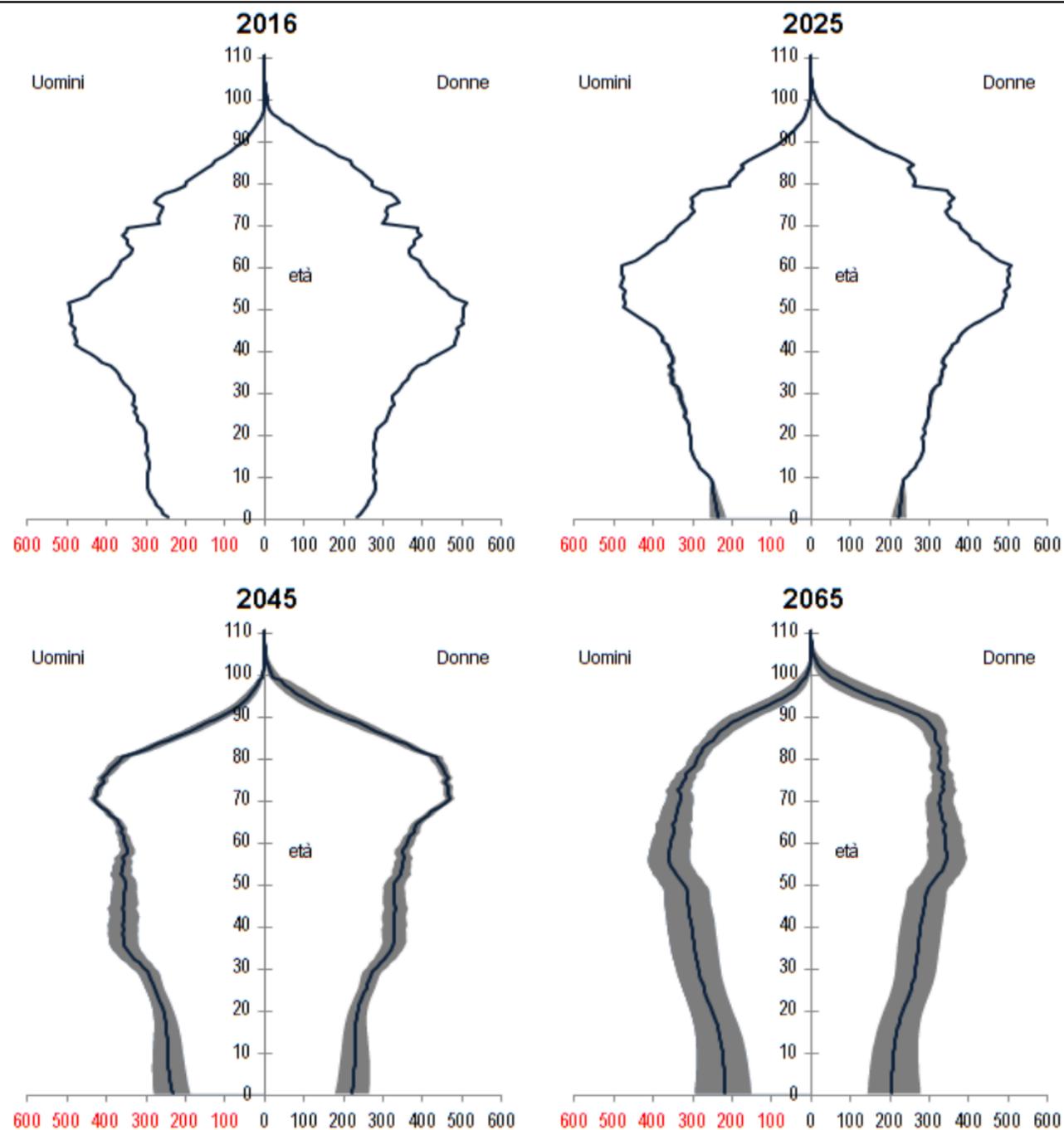
These trends for women were less pronounced for minorities suggesting a “gender-gap” regarding access to treatment and care.

# Twenty-Four-Year Trends in the Incidence of Ischemic Stroke in Sweden From 1987 to 2010

Annika Rosengren, MD; Kok Wai Giang, MSc; Georgios Lappas, MSc; Christina Jern, MD  
Kjell Torén, MD; Lena Björck, PhD



**FIGURA 5. PIRAMIDE DELLA POPOLAZIONE RESIDENTE – SCENARIO MEDIANO E INTERVALLO DI CONFIDENZA AL 90%. Italia, anni 2016-2065, 1° gennaio, dati in migliaia**



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# Countries with women inequalities have higher stroke mortality

Young Dae Kim<sup>1</sup>, Yo Han Jung<sup>2</sup>, Valeria Caso<sup>3</sup>,  
Cheryl D Bushnell<sup>4</sup> and Gustavo Saposnik<sup>5</sup>; On Behalf of The  
Women's Disparities Working Group

International Journal of Stroke

0(0) 1-6

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We compared female-to-male stroke mortality ratio and stroke mortality rates in women and men between countries according to 50 indices of women's rights from Women, Business and the Law 2016 and Gender Inequality Index from the Human Development Report by the Nations Development.

In press

## Results

### Comparison of stroke outcomes between male and female

Items	n	mean $\pm$ SD	p
Can a married woman get a job in the same way as a married man?	No (n=18)	1 $\pm$ 0.2	0.003
	Yes (n=158)	0.9 $\pm$ 0.2	
Can a married woman choose where to live in the same way as a married man?	No (n=32)	1 $\pm$ 0.2	<0.001
	Yes (n=144)	0.9 $\pm$ 0.2	
Can a married woman be head of household or head of family in the same way as a married man?	No (n=34)	1 $\pm$ 0.2	0.044
	Yes (n=12)	0.9 $\pm$ 0.1	
Does the law prohibit discrimination by creditors on the basis of gender in access to credit?	No (n=131)	0.93 $\pm$ 0.2	0.002
	Yes (n=44)	0.85 $\pm$ 0.1	
Do protection orders for domestic violence exist?	No (n=51)	1 $\pm$ 0.2	<0.001
	Yes (n=125)	0.9 $\pm$ 0.2	
Is there domestic violence legislation?	No (n=46)	1 $\pm$ 0.2	0.033
	Yes (n=130)	0.9 $\pm$ 0.2	
Does domestic violence legislation cover emotional violence?	No (n=67)	1 $\pm$ 0.2	0.018
	Yes (n=125)	0.9 $\pm$ 0.2	
Are there civil remedies for sexual harassment in employment?	No (n=113)	0.94 $\pm$ 0.22	0.033
	Yes (n=63)	0.87 $\pm$ 0.13	
Do married men and married women have equal ownership rights to property?	No (n=17)	1.1 $\pm$ 0.2	0.001
	Yes (n=155)	0.9 $\pm$ 0.2	



# Awareness and Clinical Presentation

Barbra Streisand

# YENTL



# The New England Journal of Medicine

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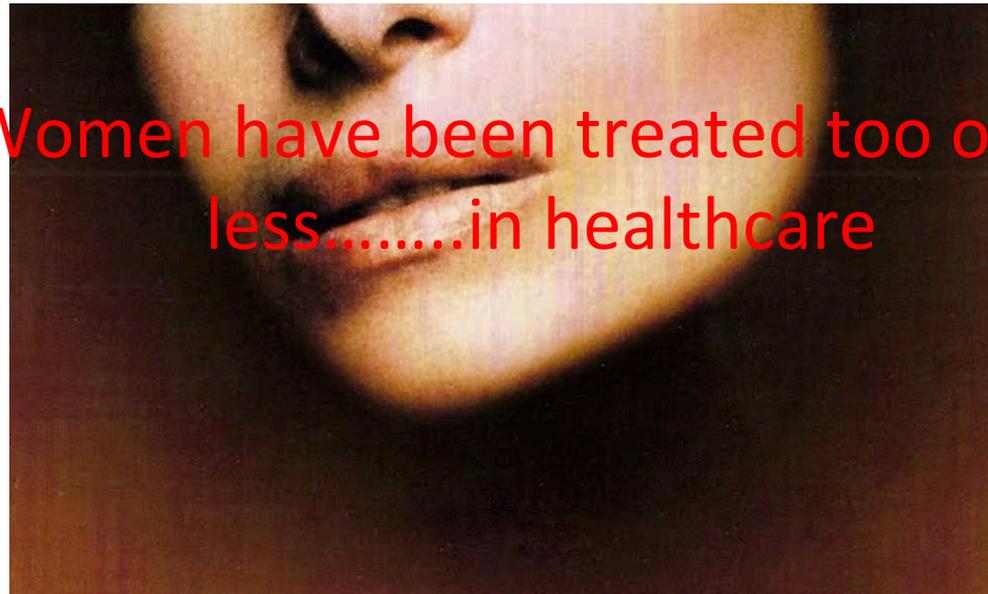
William M. McDermott, Jr., M.D.  
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## THE YENTL SYNDROME

Women have been treated too often  
less.....in healthcare



1991



European Heart Journal (2011) **32**, 1313–1315  
doi:10.1093/eurheartj/ehr083

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**DOUBLE EDITORIAL**

# The Yentl syndrome is alive and well

**C. Noel Bairey Merz\***

The Women's Heart Center, the Cedars-Sinai Heart Institute, Cedars-Sinai Medical Center, Los Angeles, CA 90048, USA

*Online publish-ahead-of-print 10 March 2011*

# Access to Care

- Social aspects also need to be considered: women tend to be the caregivers in families, and in many societies, decisions regarding women's health still depend on men.
- To foster the inclusion of women in clinical trials, age exclusions should be considered only in light of safety considerations and not as an arbitrary age cut-off.

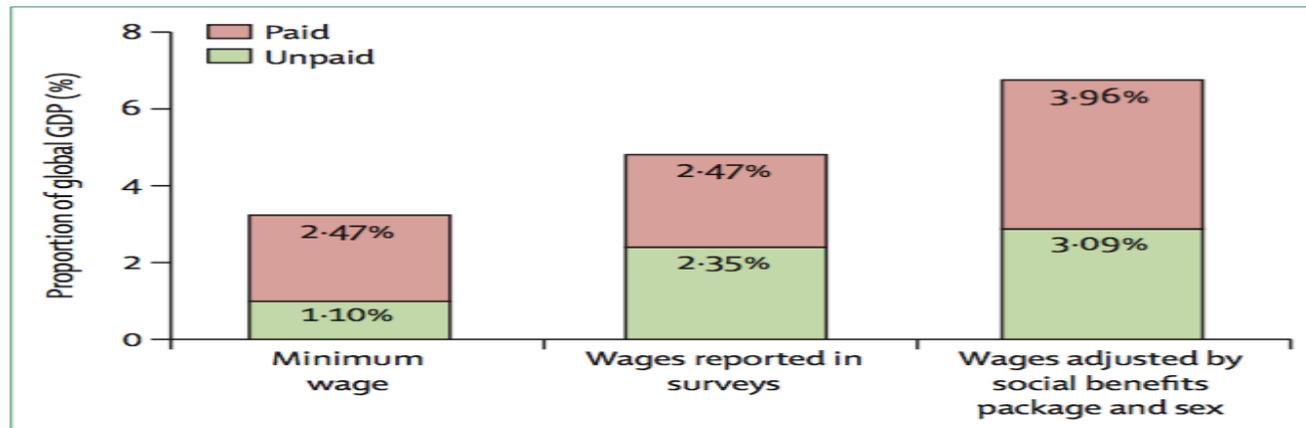
# Inequalities in women's access to health care

- In many places, cultural and religious norms are an important barrier to access to health services.
- For example, social and cultural taboos make medical care from male health providers difficult for women to seek; this issue further limits women's access to care in locations where few female health professionals are available, especially in rural areas.
- For example, in Afghanistan, many women are unable or unwilling to receive tetanus toxoid vaccinations because to expose their arm to a male vaccinator can be shameful

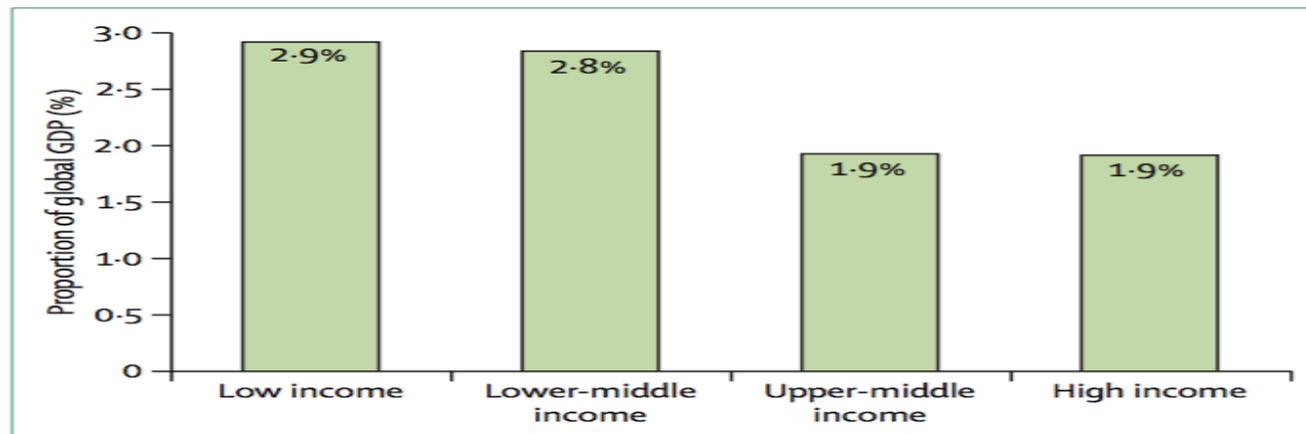
# Unpaid health-care contributions

- In Europe, an analysis of the Harmonised European Time Use Survey and the Statistics on Income and Living Conditions Survey (2009) estimated the value of unpaid domestic care:
- including normal housework chores, personal care, support with mobility, and administrative tasks
- to be 17–31.6% of total European GDP.

# Unpaid health-care contributions



**Figure 4: Estimated value of contributions of women to the health sector paid and unpaid work, % of global GDP, 2010, by wage valuation method**  
GDP=gross domestic product.



**Figure 5: Estimated annual value as % GDP of women's unpaid contributions to the health sector by income, averaging over countries for which data are available, 2010**  
Income levels categorised according to World Bank definitions.<sup>292</sup> GDP=gross domestic product.

Published in final edited form as:

*JAMA Intern Med.* 2017 February 01; 177(2): 206–213. doi:10.1001/jamainternmed.2016.7875.

## **Comparison of Hospital Mortality and Readmission Rates for Medicare Patients Treated by Male vs Female Physicians**

**Yusuke Tsugawa, MD, MPH, PhD, Anupam B. Jena, MD, PhD, Jose F. Figueroa, MD, MPH, E. John Orav, PhD, Daniel M. Blumenthal, MD, MBA, and Ashish K. Jha, MD, MPH**

Department of Health Policy and Management, Harvard T. H. Chan School of Public Health, Boston, Massachusetts (Tsugawa, Figueroa, Jha); Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts (Tsugawa, Figueroa, Orav, Jha); Department of Health Care Policy, Harvard Medical School, Boston, Massachusetts (Jena); Department of Medicine, Massachusetts General Hospital, Boston (Jena); National Bureau of Economic Research, Cambridge, Massachusetts (Jena); Department of Biostatistics, Harvard T. H. Chan School of Public Health, Boston, Massachusetts (Orav); Division of Cardiology, Massachusetts General Hospital, Boston (Blumenthal); Veterans Affairs Healthcare System, Boston, Massachusetts (Jha)



# HHS Public Access

Author manuscript

*JAMA Intern Med.* Author manuscript; available in PMC 2017 August 16.

Elderly hospitalized patients treated by female internists have lower mortality and readmissions compared with those cared for by male internists.

These findings suggest that the differences in practice patterns between male and female physicians, as suggested in previous studies, may have important clinical implications for patient outcomes.

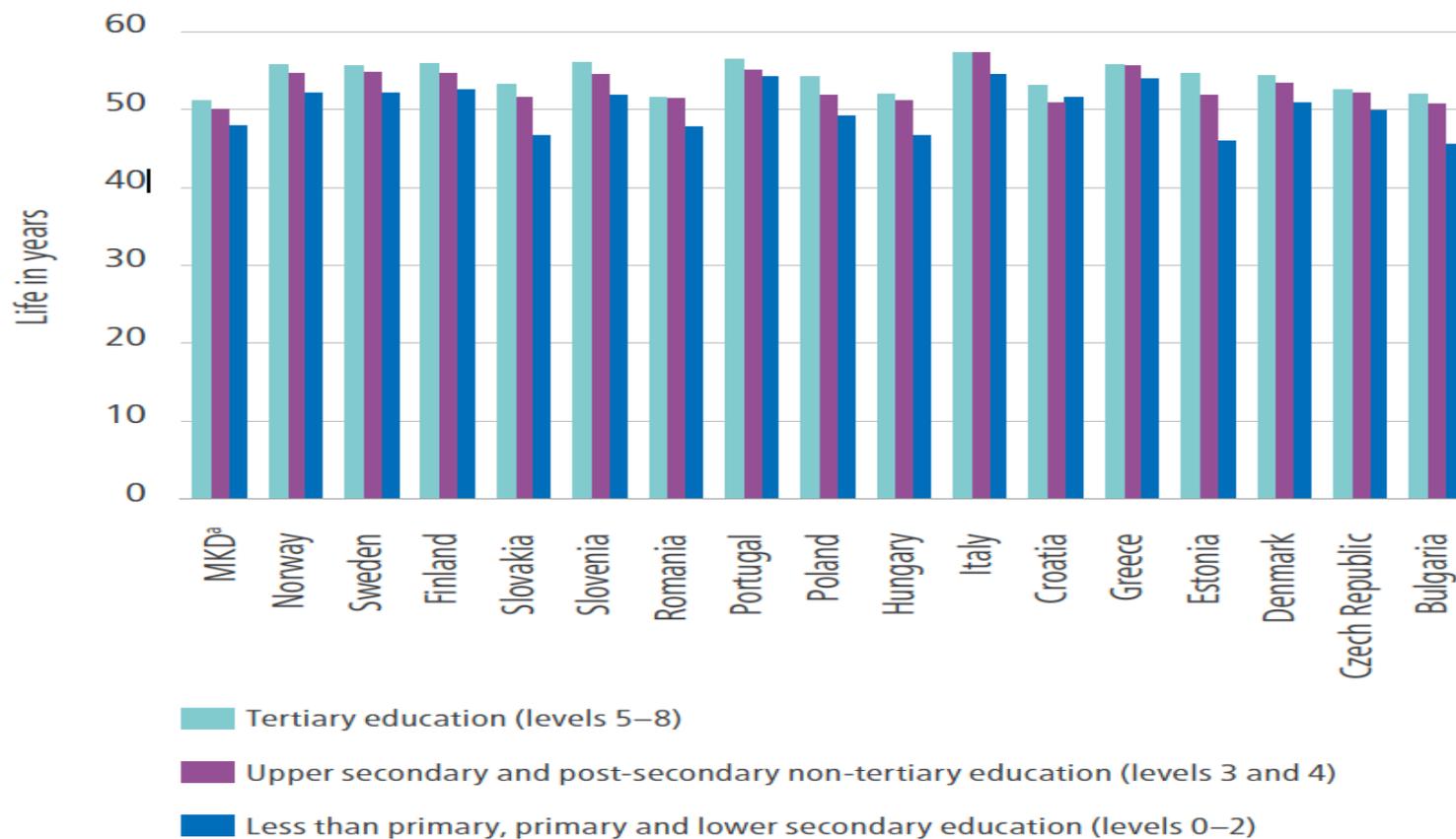
# Investment in women and health

- A mother's level of schooling is strongly linked with her children's survival. Researchers attribute more than 50% of child deaths averted between 1970 and 2009 to women's increased levels of education
- New sources of organised opposition to girls' education are emerging and gaining strength, including terrorist groups such as Boko Haram and the Taliban.

**Fig. 2.1.**

Source: Corsini (35).

Life expectancy of women aged 30 by level of education, selected countries, European Region





## Women's health and well-being in Europe: beyond the mortality advantage

