

Fundació  GALATEA

**MORTALITY AMONG DOCTORS  
IN CATALONIA (2000-2009):**  
a physicians population based study

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**Working team**

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## What's Galatea Foundation?

- Created by the Catalan Medical Association in 2001 in accordance with the regional government of Catalonia.
- Devoted to enhancing the health and the wellbeing of doctors and other health professionals.
- Integral care programmes for health professionals (doctors, nurses, veterinarians and pharmacists).
- Framework to manage programmes for health care and prevention addressed to professionals.

## What's Galatea Foundation?

### Prevention and Health Promotion Programmes

- The Medical Students Health Programme.
- Junior Doctors Health Programme.
- Health, Gender and Working Conditions.
- Pharmacists Health Programme.
- Nurses Health Programme.

## What's Galatea Foundation?

### Systematic procedure for the activities

- Defining the problem:
  - ✓ International bibliography review.
  - ✓ Expert panel advisers.
  - ✓ Developing studies.
- Publishing the results and conclusions among professionals, politicians, managers and to affect public opinion.
- Assessing recommendations for the different partners.
- Design of awareness raising initiatives (e.g. workshops, guidelines, ...)

## Health, gender and working conditions

- **Study:**

### ***Health, Lifestyles and Working Conditions of Catalan Doctors. Quantitative study.***

Reports and Studies  
Catalan, 2007  
Spanish, 2007  
English, 2009



## Mortality among doctors in Catalonia

### Objectives

- Descriptive analysis of mortality among doctors in Catalonia, as a proxy of their health status.
- Comparison with mortality of the Catalan population of the same age, gender and place of residence.
- To identify opportunities for intervention intended to reduce mortality and improve well-being among health professionals.

## Mortality among doctors in Catalonia

### Methodology:

#### **Data:**

- Medical Association of Catalonia administrative files (deaths (2000-2009) and medical population (2003\*-2009).
- Official Mortality Statistics for Catalonia. Regional Ministry of Health (causes of death for doctors and mortality data for the general population).

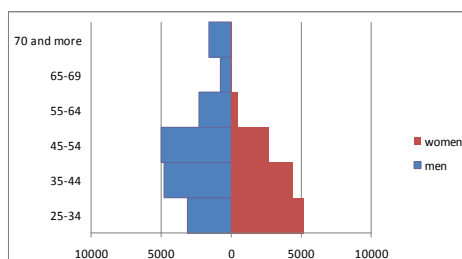
#### **Methods:**

- Agreements between Health Department and GF as well as Medical Association of Catalonia and GF.
- Automatic record-linkage between administrative and statistic files to identify the causes of doctors deaths.

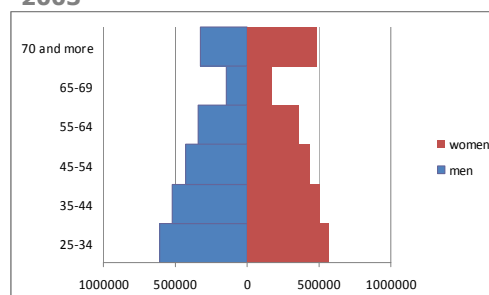
## Mortality among doctors in Catalonia

### Medical population vs General population

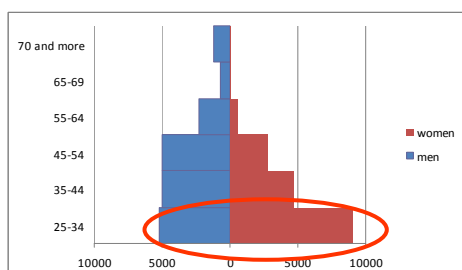
2003



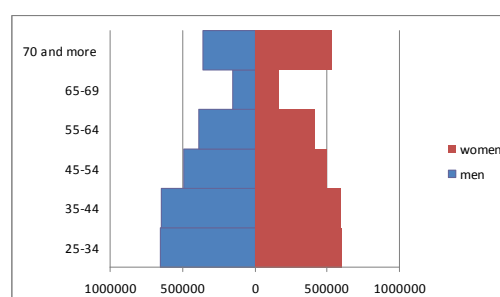
2003



2009



2009

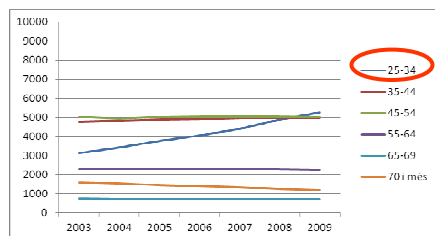




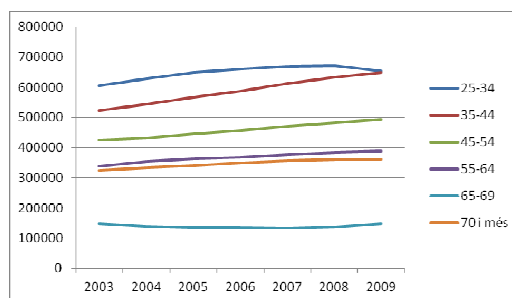
## Mortality among doctors in Catalonia

### Medical population vs General population

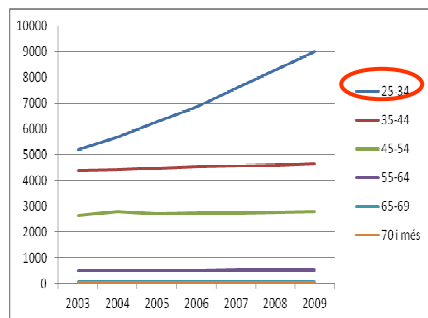
Male



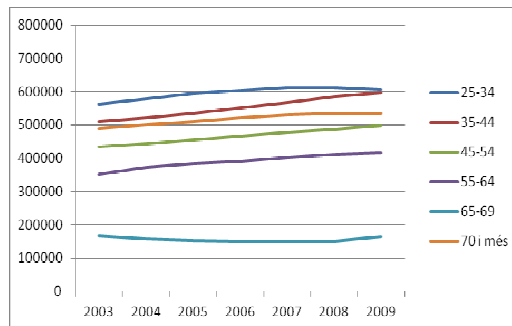
Male



Female



Female



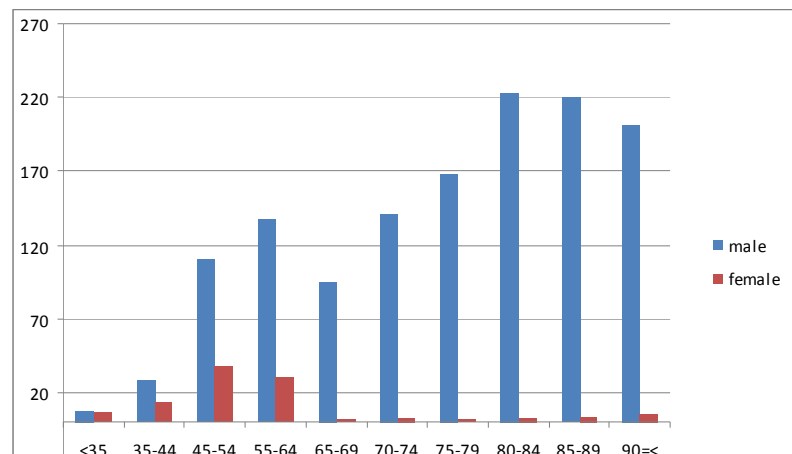
## Mortality among doctors in Catalonia

### Medical population vs General population

- **Female doctors population according to age structure is not comparable to male doctors, nor to female general population.**
- **The young medical doctors (aged 25-34) have experienced an important increase during the study period. It has been higher for young female doctors.**

## Mortality among doctors in Catalonia

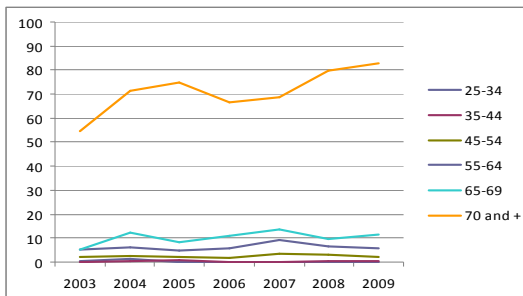
- 1,439 deaths from 2000 to 2009.
- Only 7.5% of deaths were female doctors.
- 2/3 of deaths over 70, 46% over 80, 4% below 45.



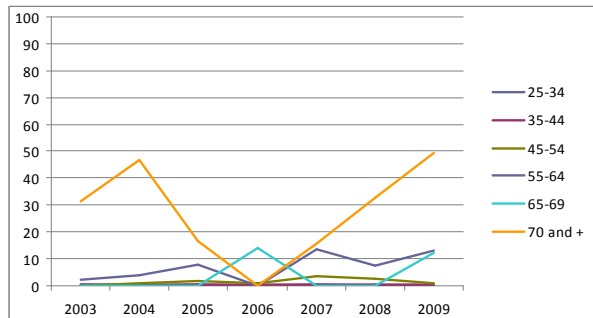
## Mortality among doctors in Catalonia

### Mortality rates by age and gender

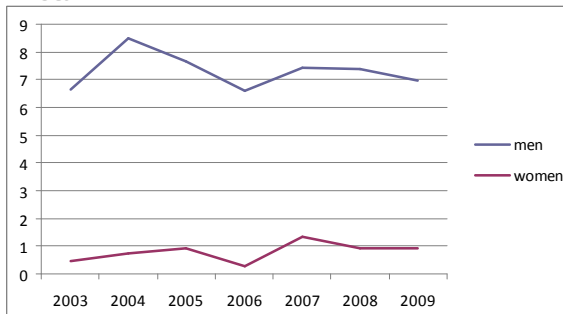
Male doctors



Female doctors



Total



- Men doctors mortality is noticeable over 70.

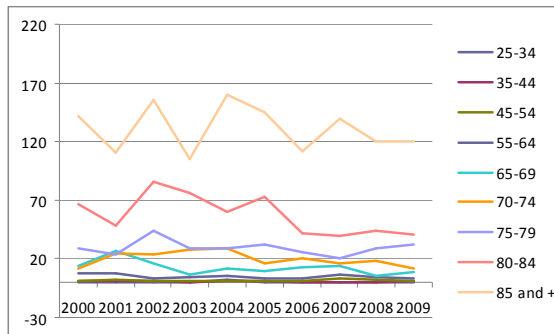
- Female doctors deaths are scarce.

➔ More accurate analysis by age with male doctors data from Barcelona Medical Association.

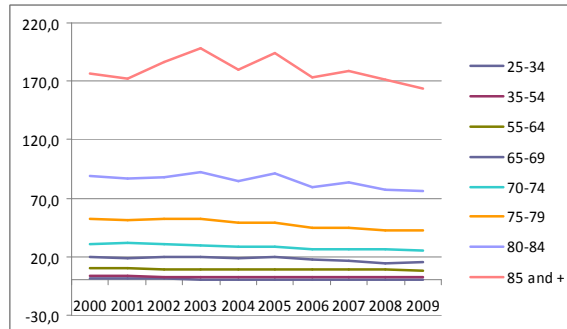
## Mortality among doctors in Catalonia

### Mortality rates by age: men, Barcelona

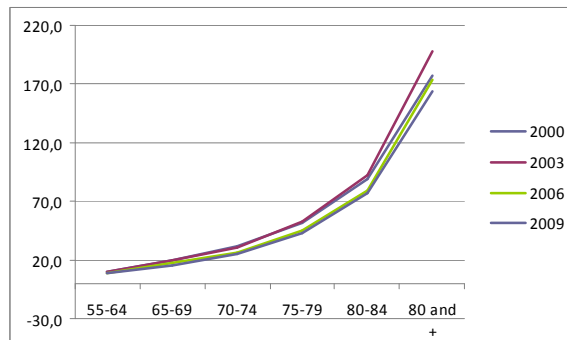
Doctors (men, Barcelona)



General population (men, Barcelona)



Doctors over 54 (men, Barcelona)



- Male doctors tend to die a bit older over the time.

- Mortality rates for doctors are lower than those of the general population.

## Mortality among doctors in Catalonia

### % distribution of deaths by causes

Cause of death	% distribution (2000-2009)			
	Physicians		General pop.	
	Male	Female	Male	Female
Malignant neoplasm of trachea, bronchus and lung	8,7	8,3	9,1	1,5
Malignant neoplasm of breast	0	16,7	0	3,5
All other tumours	24,8	21,3	24,2	16,6
Mental disorders	1,6	0,9	3,3	7,1
Nervous system diseases	4,6	2,8	3,6	6,3
Ischemic heart disease	11,5	2,8	9,9	8
Cerebrovascular diseases	6,8	4,6	6,9	9,8
All other circulatory system diseases	11,6	6,5	10,7	17,3
Bronchitis, emphysema, asthma and COPD	3,4	1,9	6,7	2,7
All other respiratory system diseases	4,7	5,6	5,4	5,9
Digestive system diseases	3,3	4,6	5,1	4,9
Not defined diseases or classified in other groups	8,3	11,1	2,2	2,6
Suicide and self harm	1,1	2,8	1	0,4
All other external causes	2,6	5,6	3,8	2,6
All other causes	7	4,6	8,2	10,8
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

- The proportional distribution of deaths by causes is similar to the general population's one.

- Slight differences by age in men: all other tumours and suicide more frequent before 70 and heart diseases deaths over this age.

- Causes of death of female doctors related to specific age structure.

- ill-defined and unknown causes (includes deaths not found).

- Suicide

## Mortality among doctors in Catalonia

### Mortality rates by causes

Cause of death	Mortality rates per 1000 hab (2000-2009)					
	Males		Females		Total	
	Physicians	Gen.pop.	Physicians	Gen.pop.	Physicians	Gen.pop.
Malignant neoplasm of trachea, bronchus and lung	0,64	0,81	0,06	0,12	0,39	0,46
Malignant neoplasm of breast	0,00	0,00	0,13	0,29	0,06	0,15
All other tumours	1,82	2,13	0,16	1,35	1,10	1,74
Mental disorders	0,12	0,29	0,01	0,58	0,07	0,44
Nervous system diseases	0,34	0,32	0,02	0,51	0,20	0,42
Ischemic heart disease	0,84	0,87	0,02	0,65	0,49	0,76
Cerebrovascular diseases	0,50	0,61	0,04	0,80	0,30	0,70
All other circulatory system diseases	0,85	0,94	0,05	1,41	0,50	1,18
Bronchitis, emphysema, asthma and COPD	0,25	0,59	0,01	0,22	0,15	0,40
All other respiratory system diseases	0,35	0,47	0,04	0,48	0,21	0,48
Digestive system diseases	0,24	0,45	0,04	0,40	0,15	0,42
Not defined diseases or classified in other groups	0,61	0,19	0,09	0,21	0,38	0,20
Suicide and self harm	0,08	0,09	0,02	0,03	0,05	0,06
All other external causes	0,19	0,33	0,04	0,21	0,13	0,27
All other causes	0,51	0,72	0,04	0,88	0,31	0,80
<b>TOTAL</b>	<b>7,34</b>	<b>8,82</b>	<b>0,77</b>	<b>8,14</b>	<b>4,48</b>	<b>8,48</b>

- Mortality rates lower in medical population.

- Even those in which proportions were higher, like suicide.

- Limitations: under-estimation?

## Mortality among doctors in Catalonia

### Conclusions (1)

Mortality rates among doctors are lower than those of the general population of the same gender and age, suggesting that doctors' health in general, is in a better situation. This result is consistent with most studies of the bibliography review and also with our previous analysis about "Health, lifestyles and working conditions of doctors in Catalonia" (2007).



## Mortality among doctors in Catalonia

### Conclusions (2)

The mortality pattern by causes of death among medical professionals is similar to the general population's one.

However, in relative terms, there are slightly more tumours and suicides among doctors below 70 and heart diseases in doctors over 70, that could reflect unhealthy life styles or risks.

→ We should consider ways to help prevention and early detection of those causes of death, especially if they could be related to the job (cancer-speciality, stress-suicide, ...).

## Mortality among doctors in Catalonia

### Conclusions (3)

The results introduce new insights about the health status and the more common diseases of doctors in our environment, which has helped us to better understand these issues that we only knew previously through studies from other countries.

**Thanks a lot for your attention**

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