

# Geographic pattern of Disability Free Life Expectancy by regions in Spain, 1999.

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# Background

The first DFLE calculations for the Spanish regions were made with data from the 1986 disability survey (Ministry Health).

DFLE of 1986 by provinces showed important variability and association with socio-economical factors (Gutierrez-Fisac and Gispert, 1994).

Important variability among the regions have been observed with several other health indicators.

# Problems

- The list of questions on disability/functional limitation of the Spanish disability surveys (1986 and 1999) are not comparable.
- 1999 survey restricts the scope of disability and produces lower estimates.

# Aims

To describe the health status and the pattern of the geographic distribution of the DFLE indicator among the Spanish regions in 1999.

# Data

- Data Sources: (INE)
- census 1999
- mortality statistics 1999
- Spanish Disability Interview Survey for 1999: n=27.000 households

# Data

## Health status variables:

- Self rated list of functional limitation + disability items: 36 items
- Self-perceived health
- Chronic diseases list

# Disability-Functional limitation items:

## Disability

- Cognitive and perception (4+4)
- Mobility in (3)
- Mobility out (3)
- Self-care (4)
- Home tasks (5)

## Functional Limitation

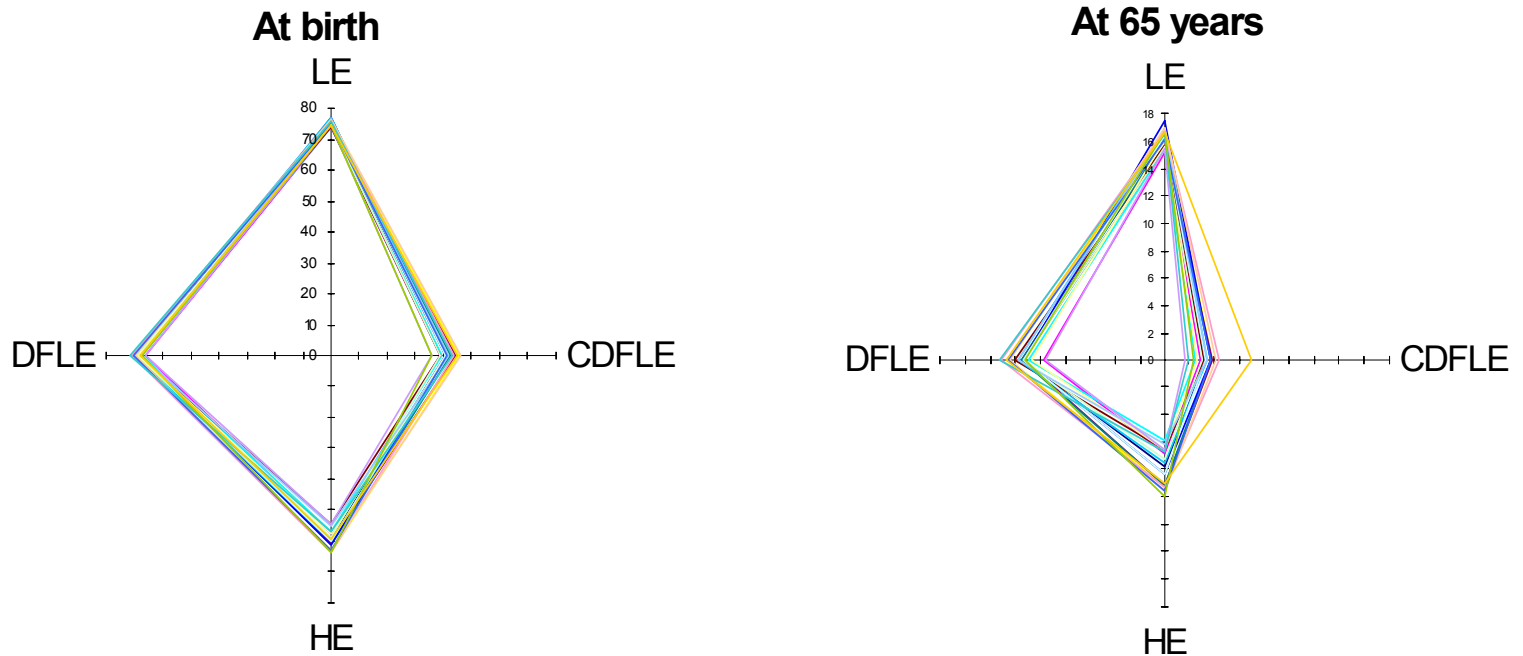
- Seeing (4)
- Hearing (3)
- Arms and hands (3)
- Communication (4)

# Methods

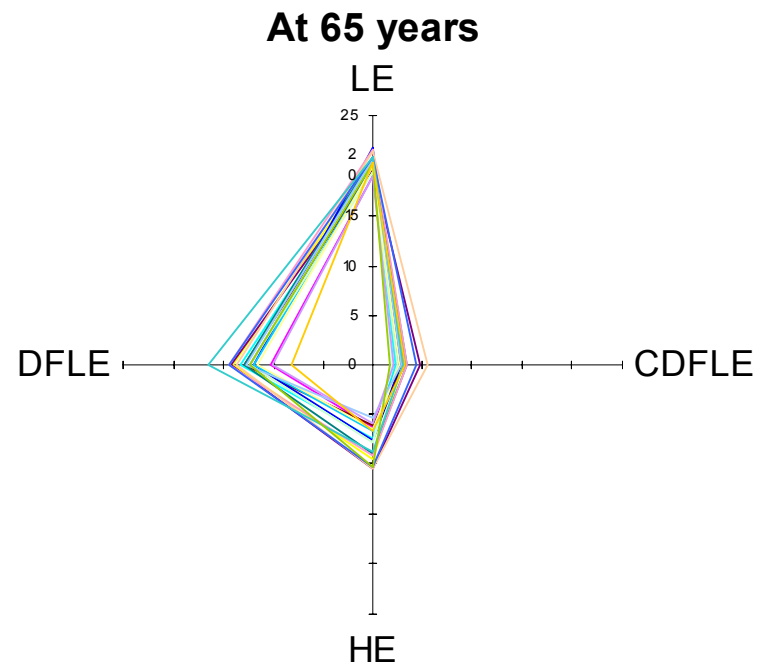
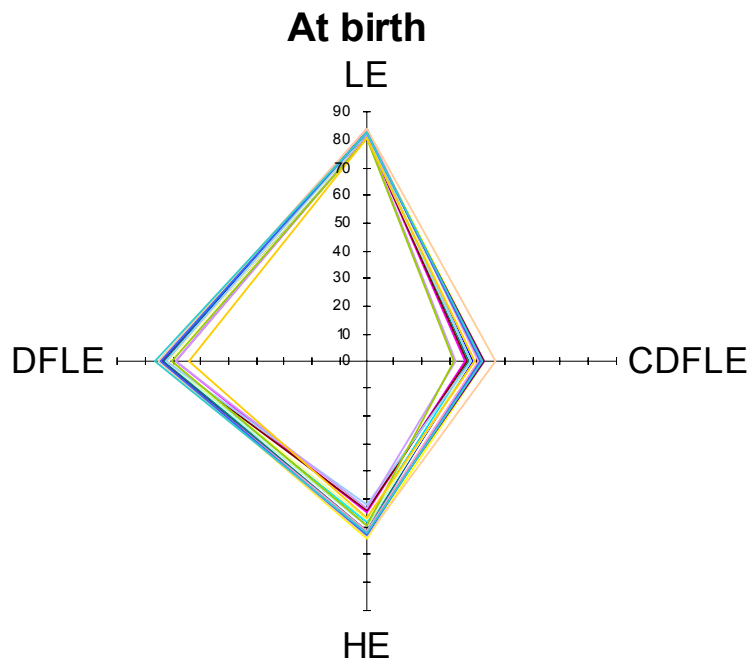
- Prevalence of at least one disability or functional limitations according age and gender by 17 regions + 2 autonomous cities.
- Life expectancy by age and gender for the 17 regions + 2 a. cities
- Sullivan Method + SE (REVES)



# Health status variability of the Spanish regions 1999. Men



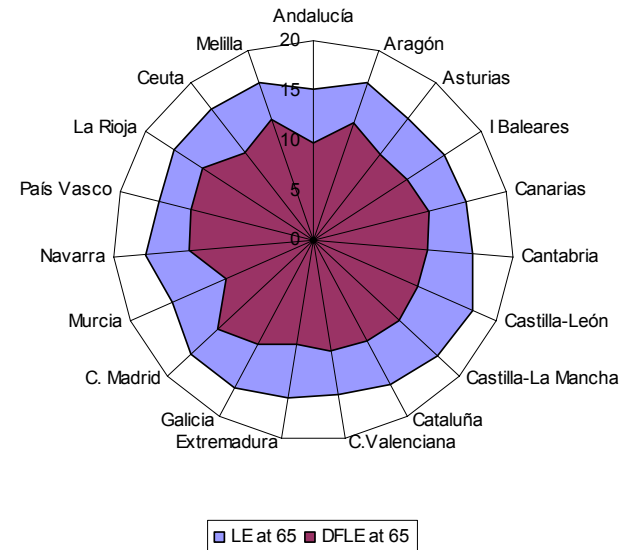
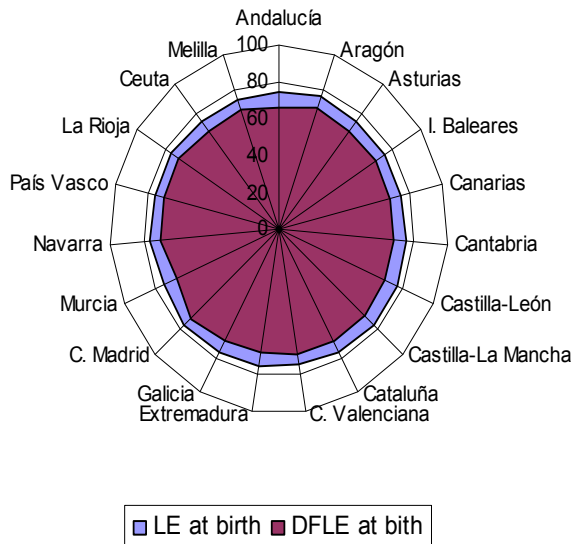
# Health status variability of the Spanish regions 1999. Women



# Results

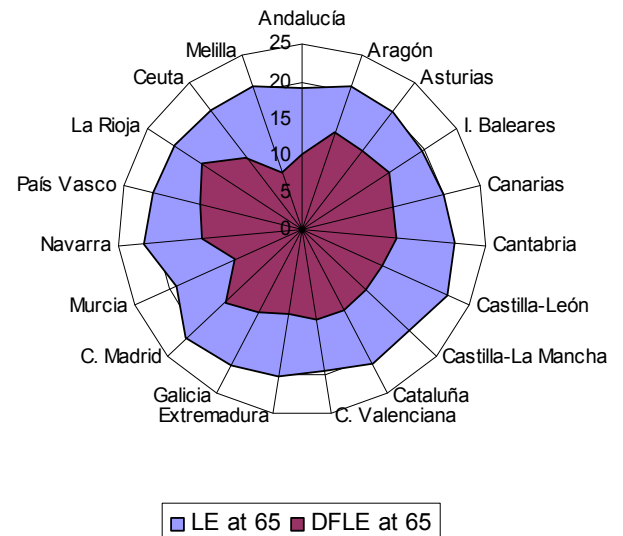
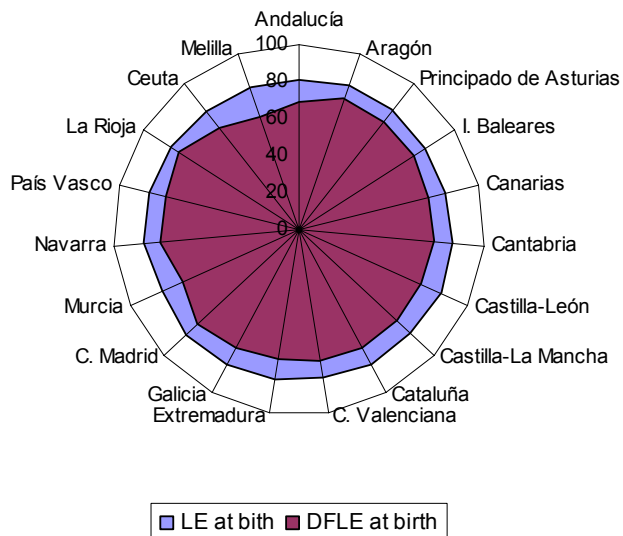
- Range in LE 1999:
  - Men: 74 – 76.7 Spain: 75.3
  - Women: 80.7 – 83.9 Spain: 82.3
- Range in DFLE 1999:
  - Men: 66.8 – 71 Spain: 69.1
  - Women: 67.7 – 75.7 Spain: 72.3

# DFLE in Spain by regions, 1999. Men

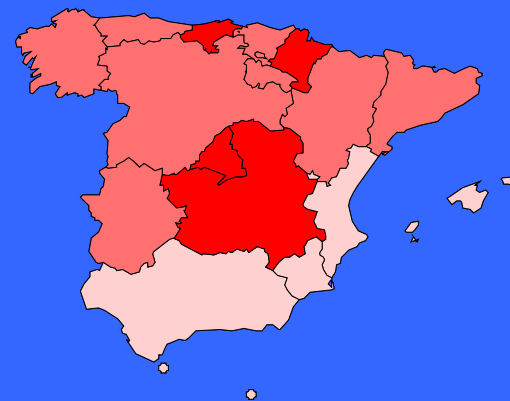
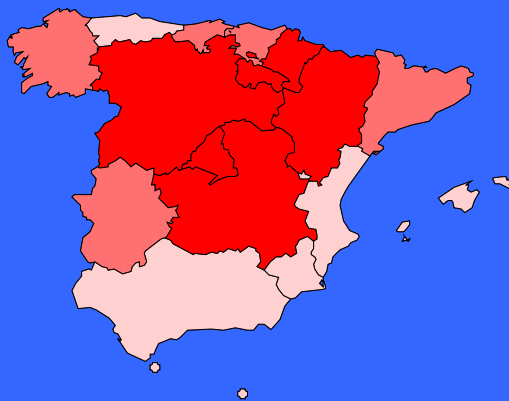


# DFLE in Spain by regions, 1999.

## Women



# Geographical pattern of LE in Spain by regions, 1999



Men  
(Spain: 75,3)

LE. SPAIN, 1999

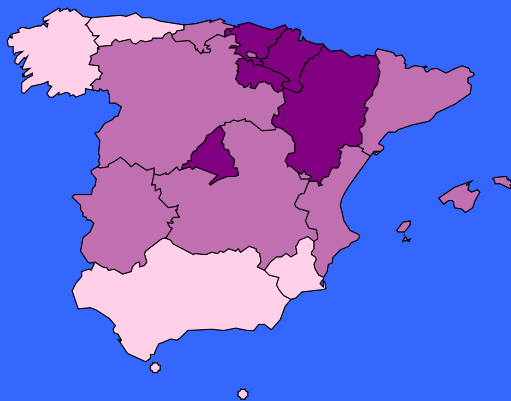
■	75,92 to 76,7
■	75,13 to 75,92
■	73,94 to 75,13

Women  
(Spain: 82,3)

LE. SPAIN, 1999

■	83,12 to 83,88
■	82,13 to 83,12
■	80,7 to 82,13

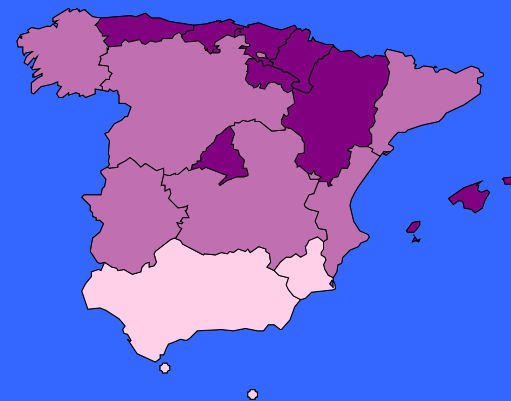
# Geographical pattern of DFLE in Spain by regions, 1999



Men  
(Spain: 69,1)

DFLE. SPAIN, 1999

- 70,58 to 72,38
- 68,8 to 70,58
- 66,82 to 68,8

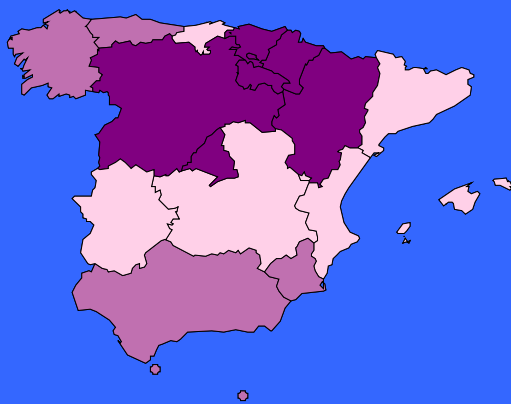


Women  
(Spain: 72,3)

DFLE. SPAIN, 1999

- 73,42 to 75,66
- 71,48 to 73,42
- 67,72 to 71,48

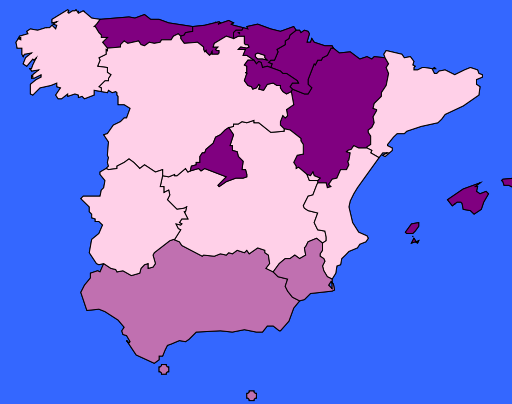
# Differences in DFLE by regions. Spain 1999



DFLE-MEN  
SPAIN, 1999

- DFLE superior to Spain
- DFLE inferior to Spain
- Not significant

Men



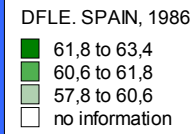
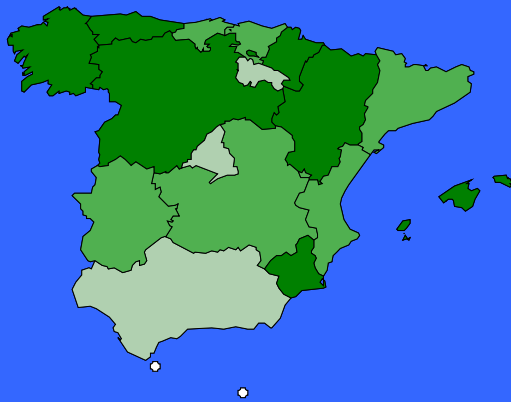
DFLE- WOMEN  
SPAIN, 1999

- DFLE Superior to Spain
- DFLE Inferior to Spain
- Not significant

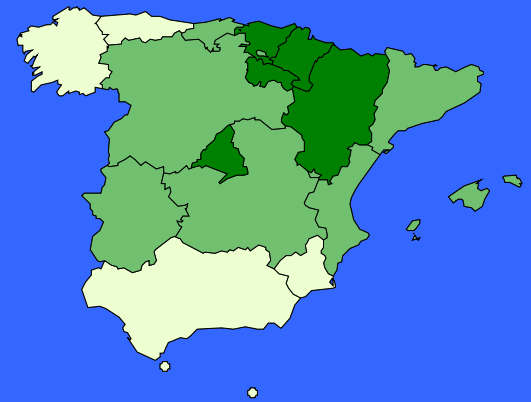
Women



# Change of DFLE geographical pattern, Spain 1986-1999. Men

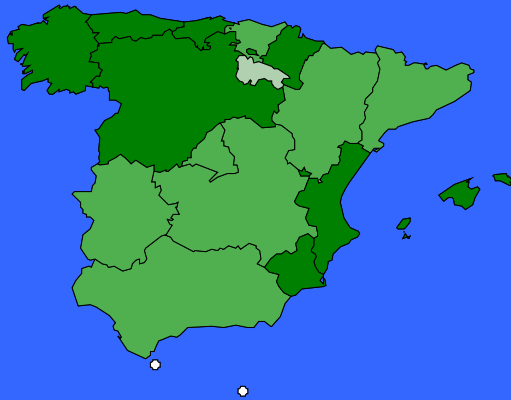


Spanish DFLE 1986: 60,8

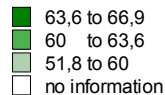


Spanish DFLE 1999: 69,1

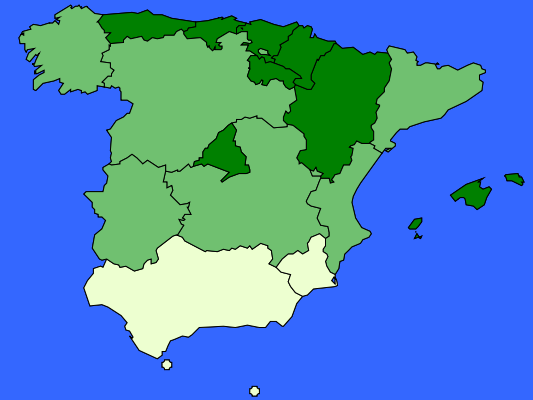
# Change of DFLE geographical patterns, Spain 1986-1999. Women



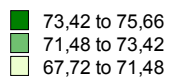
DFLE. SPAIN, 1986



Spanish DFLE 1986: 62,6



DFLE. SPAIN, 1999



Spanish DFLE 1999: 72,3

# Limitations/ challenges

- Selection of disability items vs. whole list
- Large differences in regional sizes
- Calculation of EE of the DFLE indicator to obtain more precise comparisons.

# Summary results

- There is considerable geographical variability among the Spanish regions in 1999 for several health indicators.
- Variability on health expectancy indicators is higher at 65 years than at birth.
- Range of DFLE variability among regions is higher than the variability on LE.
- Range of DFLE variability is double for women than for men.

# Conclusions

- DFLE is significantly higher in 6 regions for men and in other 8 for women.
- DFLE is significantly lower in 4 regions for men and in 2 of them for women.
- Regions with the highest LE have not the highest DFLE and vice versa.

# Conclusions

- There is some north/south geographical pattern
- Data is not strictly comparable but ordinal comparisons suggest that it has been important changes in the geographical pattern of DFLE between 1986 and 1999.