

Highly educated men and women likely to live longer Life expectancy by educational attainment

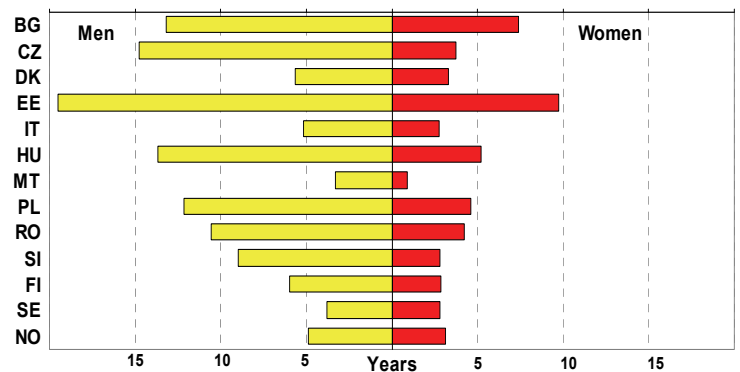
Life expectancy by educational attainment is a very important indicator of socio-economic inequalities in health. Based on the available data for a selection of EU Member States and Norway, a systematic relationship between educational attainment and mortality can be observed: at any age, life expectancy is less

among persons with the lowest educational attainment and increases with educational level. Large differences in life expectancy by educational attainment can be observed among Member States. Moreover, these differences are more pronounced for men than for women.

EU Member States are facing substantial health inequalities in their populations based on socio-economic status, with negative consequences for health, social cohesion and economic development. While overall levels of mortality have declined for all socio-economic groups, it is interesting to see that relative mortality differences between higher and lower socio-economic groups have remained unchanged or even increased. In all countries, mortality, health and the age that people die at are strongly influenced by socio-economic factors such as educational attainment, employment status and income level.

This publication presents first results, based on provisional data, on life expectancy by sex, age and educational attainment for a selected number of EU and EFTA countries.

Figure 1: Life expectancy gaps between high and low educational attainment at age 30, women and men, 2007



Source: Eurostat ([demo_mlexpecedu](#)); PL: 2008 data.

Life expectancy increases with educational attainment and the effect is more pronounced for men than for women

In most of the countries examined, for both sexes, life expectancy increases with educational attainment: higher educated people live longer than lower educated people, both men and women. Life expectancy for women at a given educational attainment level is always higher than that of men at the same level. However, differences between the sexes decline as educational attainment increases.

Based on the data reported in Table 1, life expectancy 'gaps' or mortality differentials between educational attainment groups can be assessed: among men these gaps are generally larger than among women; in many cases they are twice as large. Differences between educational groups are most pronounced among young men.

Table 1: Life expectancy by educational attainment at selected ages, women and men, 2007-2008

Country	Educational attainment	Women										Men									
		Age 30		Age 40		Age 50		Age 60		Age 70		Age 30		Age 40		Age 50		Age 60		Age 70	
		2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008
BG	Total	48.0	48.3	38.3	38.7	29.1	29.4	20.5	20.8	12.7	12.9	41.3	41.6	31.9	32.3	23.4	23.8	16.3	16.6	10.5	10.7
BG	Low	43.8	44.1	35.1	35.4	27.2	27.4	19.5	19.7	12.4	12.5	34.0	33.9	25.9	25.9	19.5	19.6	14.6	14.7	10.1	10.3
BG	Medium	49.4	49.7	39.6	40.0	30.2	30.5	21.4	21.6	13.1	13.3	44.1	44.5	34.4	34.9	25.5	25.9	17.6	18.0	10.7	11.1
BG	High	51.2	51.4	41.3	41.5	31.5	31.8	22.2	22.6	13.5	13.8	47.2	47.4	37.3	37.6	27.6	28.0	19.0	19.2	11.4	11.6
CZ	Total	50.8	51.0	41.0	41.3	31.5	31.8	22.7	23.0	14.6	14.9	44.8	45.0	35.4	35.5	26.3	26.5	18.5	18.7	12.0	12.1
CZ	Low	50.5	51.4	41.2	42.0	32.0	32.7	23.1	23.7	14.8	15.2	36.4	38.0	28.0	29.5	20.6	21.8	14.6	15.5	10.2	10.9
CZ	Medium	50.2	50.3	40.4	40.5	31.0	31.1	22.2	22.4	14.3	14.6	44.9	44.8	35.4	35.3	26.4	26.3	18.5	18.6	12.1	12.2
CZ	High	54.3	54.5	44.4	44.5	34.7	34.7	25.0	25.1	15.6	15.8	51.1	51.4	41.3	41.5	31.5	31.8	22.2	22.4	13.3	13.5
DK	Total	51.2	51.5	41.4	41.8	32.0	32.4	23.3	23.6	15.3	15.6	47.2	47.5	37.6	38.0	28.5	28.8	20.3	20.4	13.0	13.1
DK	Low	49.5	49.0	39.9	39.8	31.0	30.9	22.7	22.7	15.1	15.3	44.2	44.0	35.2	35.3	26.8	26.8	19.4	19.3	12.7	12.6
DK	Medium	51.8	52.2	41.9	42.5	32.5	33.0	23.7	24.1	15.4	15.8	47.5	47.8	37.9	38.1	28.7	28.9	20.4	20.5	13.1	13.2
DK	High	52.8	53.6	42.9	43.8	33.3	34.1	24.2	24.9	15.7	16.3	49.9	50.4	40.1	40.6	30.5	31.0	21.6	22.0	13.6	13.9
EE	Total	49.8	50.4	40.2	40.8	31.0	31.5	22.5	22.9	14.6	15.0	39.3	40.5	30.4	31.5	22.4	23.2	15.9	16.4	10.7	11.0
EE	Low	43.9	45.0	35.2	35.8	27.5	28.3	21.1	21.4	14.2	14.5	28.3	30.7	20.9	23.3	14.9	17.0	11.4	13.0	8.3	9.3
EE	Medium	49.0	49.5	39.4	39.9	30.5	30.8	22.3	22.7	14.5	15.0	40.2	41.2	31.3	32.1	23.7	24.0	17.3	17.2	11.7	11.4
EE	High	53.6	54.0	43.8	44.1	34.1	34.3	24.6	24.7	15.6	15.7	47.9	47.7	38.0	38.1	28.6	28.7	19.8	20.0	12.1	12.4
IT	Total	54.8		45.0		35.4		26.2		17.6		49.7		40.1		30.8		22.0		14.2	
IT	Low	54.0		44.3		34.9		26.0		17.5		48.0		38.6		29.7		21.4		14.1	
IT	Medium	56.6		46.8		37.0		27.5		18.2		52.9		43.1		33.4		24.1		15.2	
IT	High	56.7		46.8		37.0		27.4		18.1		53.1		43.2		33.5		24.1		15.1	
HU	Total	48.6	49.0	38.9	39.3	29.9	30.3	21.7	22.0	14.1	14.4	40.5	41.1	31.2	31.7	23.1	23.4	16.6	16.8	11.0	11.2
HU	Low	45.6	46.3	36.3	37.0	28.3	28.7	21.0	21.2	14.0	14.3	33.1	34.0	24.5	25.2	18.0	18.4	13.7	13.7	10.6	10.8
HU	Medium	50.4	50.6	40.6	40.9	31.5	31.7	23.0	23.2	14.5	14.9	43.3	43.7	33.9	34.2	25.7	25.8	19.0	19.2	11.7	12.0
HU	High	50.9	51.1	41.1	41.2	31.6	31.7	22.7	22.7	14.5	14.4	46.8	47.1	37.0	37.3	27.8	28.0	19.6	19.6	12.0	12.3
MT	Total	53.1	53.1	43.3	43.3	33.7	33.6	24.6	24.4	16.0	16.0	48.7	48.5	39.1	39.0	29.6	29.7	20.7	20.9	13.1	13.4
MT	Low	53.0	53.0	43.3	43.2	33.7	33.5	24.6	24.3	16.0	15.9	48.3	48.0	38.7	38.7	29.3	29.5	20.5	20.8	13.0	13.3
MT	Medium	52.9	53.5	43.1	43.5	33.1	33.6	24.7	25.1	16.6	16.3	49.4	49.4	39.8	39.5	30.2	29.9	20.9	21.8	13.1	13.8
MT	High	53.9	54.6	44.3	44.6	34.7	35.2	25.5	25.3	16.9	16.3	51.5	51.0	41.7	41.2	31.9	31.6	23.0	21.9	14.1	13.8
PL	Total	50.8		41.1		31.8		23.2		15.2		42.6		33.4		25.1		17.9		11.9	
PL	Low	48.6		39.3		31.0		22.8		15.1		36.5		28.6		22.3		16.7		11.4	
PL	Medium	51.0		41.3		31.9		23.3		15.4		43.1		33.9		25.3		18.0		12.0	
PL	High	53.2		43.3		33.7		24.4		15.8		48.7		38.9		29.5		20.8		13.0	
RO	Total	48.3	48.6	38.6	38.9	29.4	29.7	20.8	21.1	13.1	13.4	41.7	41.6	32.4	32.4	24.1	24.0	17.0	17.1	11.1	11.2
RO	Low	46.1	46.4	36.9	37.1	28.6	28.7	20.5	20.8	13.0	13.3	35.3	35.3	27.0	26.9	20.7	20.6	15.8	15.9	10.7	10.8
RO	Medium	50.0	50.7	40.3	40.9	30.8	31.5	21.9	22.5	13.6	14.0	44.3	44.5	34.9	35.1	26.2	26.5	18.7	19.0	11.9	12.0
RO	High	50.3	48.7	40.6	39.0	31.1	29.7	22.0	21.0	13.8	13.4	45.9	43.4	36.2	33.7	27.0	24.8	18.8	17.1	11.6	11.0
SI	Total	52.7	53.1	42.9	43.3	33.4	33.8	24.5	24.8	16.1	16.4	45.8	46.5	36.3	37.0	27.4	28.0	19.4	20.1	12.5	12.9
SI	Low	51.2	51.8	41.8	42.3	32.7	33.0	24.1	24.4	16.0	16.2	41.1	42.7	32.6	33.6	24.6	25.3	17.7	18.2	12.1	12.3
SI	Medium	53.3	53.6	43.4	43.8	33.9	34.2	24.8	25.2	16.3	16.6	46.2	47.0	36.7	37.4	27.7	28.4	19.5	20.4	12.6	13.1
SI	High	54.0	54.3	44.1	44.5	34.4	34.8	25.2	25.6	16.4	16.7	50.1	50.0	40.3	40.2	30.7	30.7	21.6	21.9	13.1	13.7
FI	Total	53.8	53.9	44.0	44.1	34.6	34.6	25.6	25.7	17.1	17.2	47.1	47.6	37.7	38.2	28.8	29.2	20.8	21.2	13.6	14.0
FI	Low	52.0	51.8	42.6	42.5	33.8	33.7	25.3	25.3	17.0	17.1	44.3	44.8	35.7	36.2	27.6	27.9	20.2	20.5	13.4	13.8
FI	Medium	54.0	54.0	44.3	44.3	34.8	34.8	25.7	25.8	17.1	17.3	47.0	47.5	37.6	38.0	28.7	29.2	20.7	21.2	13.7	14.0
FI	High	54.8	55.2	45.0	45.3	35.4	35.6	26.1	26.3	17.3	17.4	50.2	50.8	40.5	41.1	31.1	31.5	22.2	22.7	14.1	14.5
SE	Total	53.6	53.8	43.8	44.0	34.2	34.4	25.1	25.3	16.7	16.9	49.9	50.0	40.2	40.4	30.8	30.9	22.0	22.1	14.2	14.3
SE	Low	52.0	52.2	42.6	42.6	33.4	33.4	24.6	24.7	16.6	16.7	48.1	48.1	38.8	38.9	29.8	29.9	21.4	21.5	14.0	14.1
SE	Medium	53.6	53.8	43.8	44.0	34.3	34.4	25.1	25.3	16.7	16.9	49.9	50.1	40.3	40.4	30.9	31.0	22.1	22.2	14.2	14.3
SE	High	54.8	55.0	44.9	45.1	35.2	35.5	25.8	26.1	17.0	17.2	51.9	51.9	42.0	42.1	32.4	32.4	23.1	23.1	14.6	14.6
NO	Total	53.5	53.7	43.7	44.0	34.2	34.4	25.1	25.3	16.7	17.0	49.3	49.4	39.6	39.8	30.3	30.4	21.5	21.6	13.8	13.9
NO	Low	51.9	52.1	42.4	42.5	33.0	33.1	24.5	24.5	16.5	16.7	46.7	46.8	37.4	37.7	28.5	28.6	20.3	20.5	13.4	13.5
NO	Medium	53.8	54.2	44.0	44.4	34.5	34.8	25.4	25.6	16.9	17.2	49.5	49.6	39.8	39.9	30.4	30.5	21.6	21.7	13.8	13.9
NO	High	55.0	55.0	45.1	45.2	35.4	35.5	26.0	26.2	17.1	17.3	51.6	51.7	41.8	41.9	32.1	32.2	22.8	23.0	14.3	14.4

Source: Eurostat ([demo_mlexpecedu](#))

In general, the life expectancy gaps for men at any selected age are much higher between medium and low educational attainment than between high and medium education. For women, at any age, life expectancy gaps between high and medium educational attainment and

between medium and low educational attainment are less pronounced. While life expectancy for women is consistently higher than for men, there are smaller differences between educational attainment groups for women than for men.

Large differences in life expectancy by educational attainment are evident among Member States

Large differences in life expectancy by educational attainment are evident among the Member States examined, particularly in the Eastern European countries (Bulgaria, Czech Republic, Estonia, Hungary, Poland, Romania) for men. Among the

other countries examined, differences are less pronounced.

The published data also highlight another important ‘mortality advantage’ of women over men: the life expectancy of men with higher education is lower

than the life expectancy of women with the lowest educational attainment. As can be observed in Table 1, this was true in 2007 and 2008 at all ages in Italy, Malta, Poland, Romania, Slovenia,

Finland, Sweden and Norway; for the other countries examined, this was true in about 50% of cases, mostly at ages 50, 60 and 70.

The European Commission is actively working towards reducing health inequalities in the Member States. A plan to address the problem was outlined in the October 2009 European Commission Communication 'Solidarity in health: reducing health inequalities in the EU',¹. The EU is thus working directly, through EU policies, and indirectly, through national authorities and stakeholders, to reduce health inequalities. By improving the life expectancy of disadvantaged groups, a general increase in overall life expectancy is also to be expected.

METHODOLOGICAL NOTES

Statistical symbols and abbreviations

Country names are abbreviated as follows: Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Estonia (EE), Italy (IT), Hungary (HU), Malta (MT), Poland (PL), Romania (RO), Slovenia (SI), Finland (FI), Sweden (SE), and Norway (NO).

The reason for the selection of countries in this publication is data availability: to calculate the required indicator, detailed data on deaths by sex, age and educational attainment and on population with the same breakdown are needed. Though all countries have mortality information by sex and age, only a few can provide mortality information by socio-economic characteristics like educational attainment. The main reason is that regular data on the distribution of the population and/or the deceased by socio-economic variables are not available or not sufficient (in terms of coverage, level of detail, reliability, etc.).

Data source

The data on deaths and population used for this publication are provided by the National Statistical Institutes (NSI) of the countries as part of the annual Demographic Joint Data Collection conducted by Eurostat in cooperation with UNSD.

For BG, CZ, EE, IT, HU, PL, RO and SI, information on educational attainment for the population has been derived from the European Labour Force Survey annual data.

Please note that these are experimental statistics and will be developed further in the future, so any conclusions should be drawn with caution. The work is based on a common methodology for treating the basic input data.

Glossary

Life expectancy at age x: is the average number of years a person would live beyond age x if current age-specific mortality rates were to remain the same.

Educational attainment (highest level of education successfully completed):

Statistics are compiled using the International Standard Classification of Education (ISCED), version 1997, as follows

- **Low** corresponds to pre-primary, primary and lower secondary education (ISCED levels 0, 1, 2);
- **Medium** corresponds to upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4);
- **High** corresponds to tertiary education (ISCED levels 5 and 6).

Educational attainment level is used in this publication as a proxy for socio-economic status.

¹COM/2009/0567, published on 20 October 2009, available at http://ec.europa.eu/health/social_determinants/policy/commission_communication/index_en.htm.

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