

Socioeconomic Differences in Health Expectancy

New Estimates from the Netherlands

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Socioeconomic Status

Education rather than occupation or income, because it is:

- **Closely related to long-term economic position (Smith & Kingston, 1997)**
- **Stable over time**
- **Less susceptible to reverse causation**
- **Less problematic in use with older people**
- **Widely used in health inequality research**



Educational level

**4 categories, approximating ISCED-levels
(UNESCO, 1997)**

- 1. Primary education (ISCED-level 1)**
- 2. Lower secondary education (ISCED-level 2)**
- 3. Upper secondary education (ISCED-level 3)**
- 4. Post-secondary and tertiary education
(ISCED-levels 4-6)**



Data Sources

Continuous Survey of Living Conditions

1997 – 2005

90.812 participants in total

Response-rates per year: 55 – 62%

Labour Force Survey

1997 – 2005

1.251.902 participants in total

Response-rates per year: 55 – 70%

Municipal Population Register

Information on deaths



Methods

Prevalences

- **Calculated from the Continuous Survey of Living Conditions**
- **Stratified by gender, age and educational attainment**

❖ **Perceived unhealthiness**

How is your health in general?

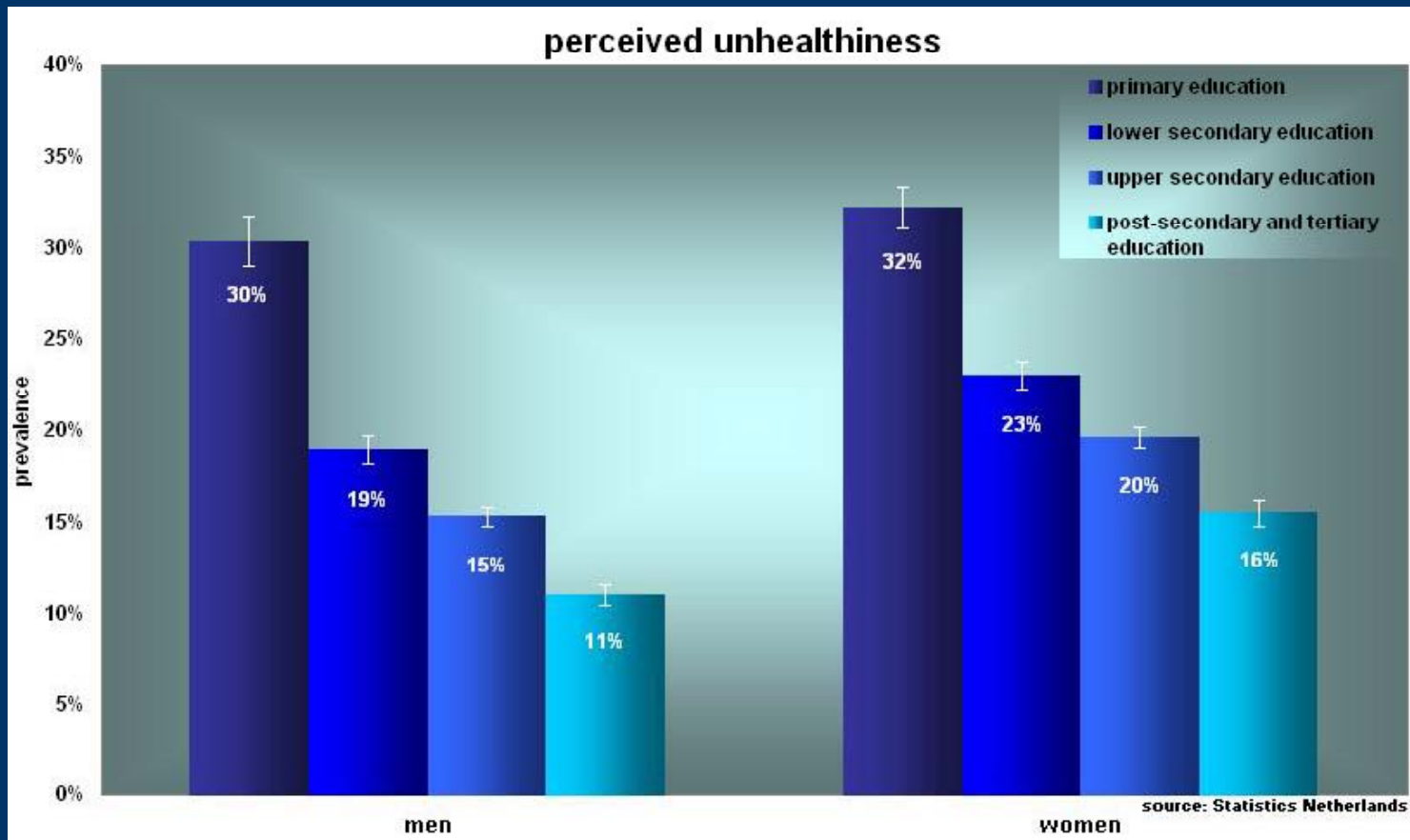
❖ **Physical disabilities**

OECD-questions on disability (# 1,2,4,5,9,10,12)

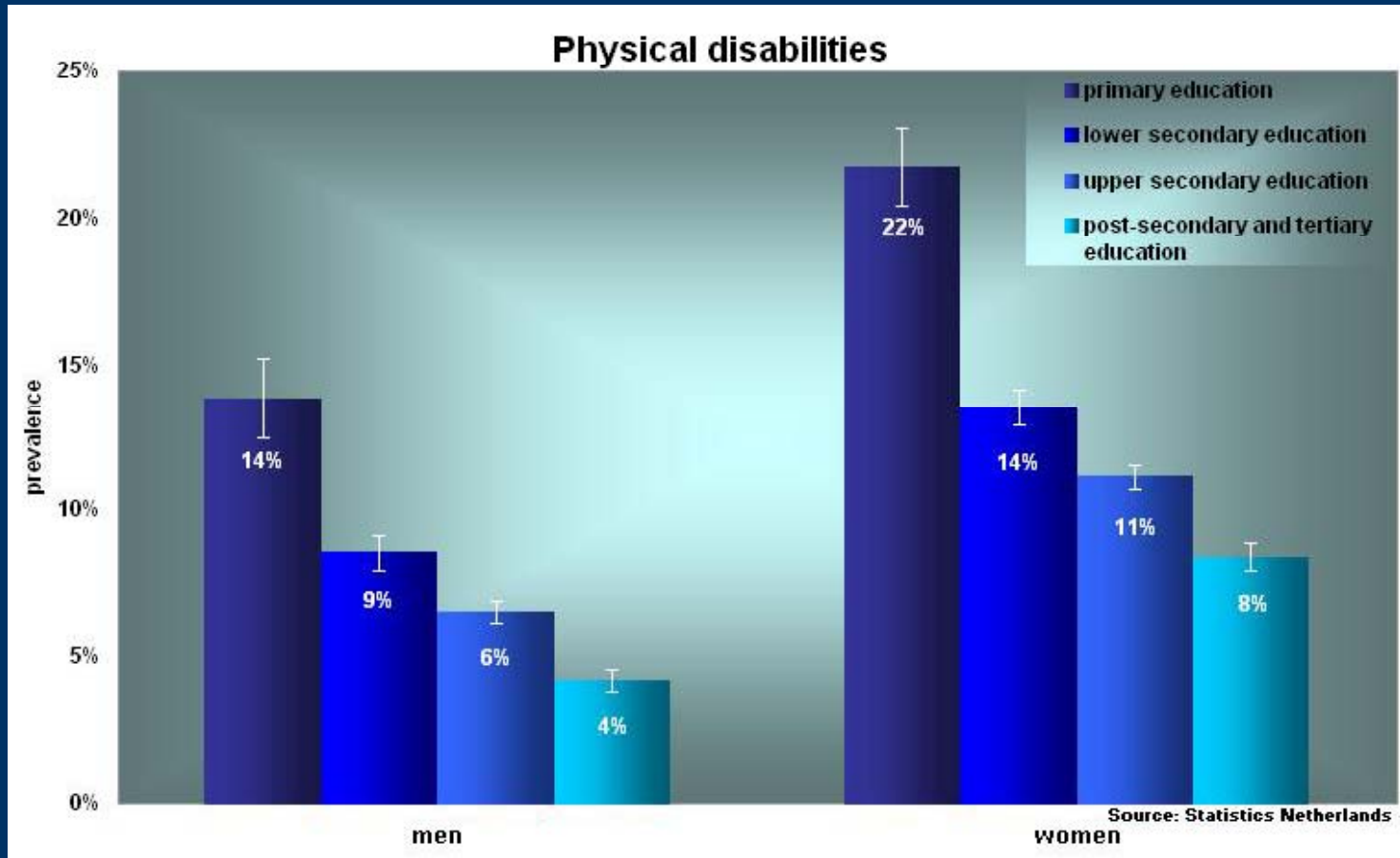
❖ **Longstanding Illnesses**

asthma/copd, heart disease, stroke, HBP,
stomach ulcer, diabetes, back disorder, arthritis,
migraine, cancer

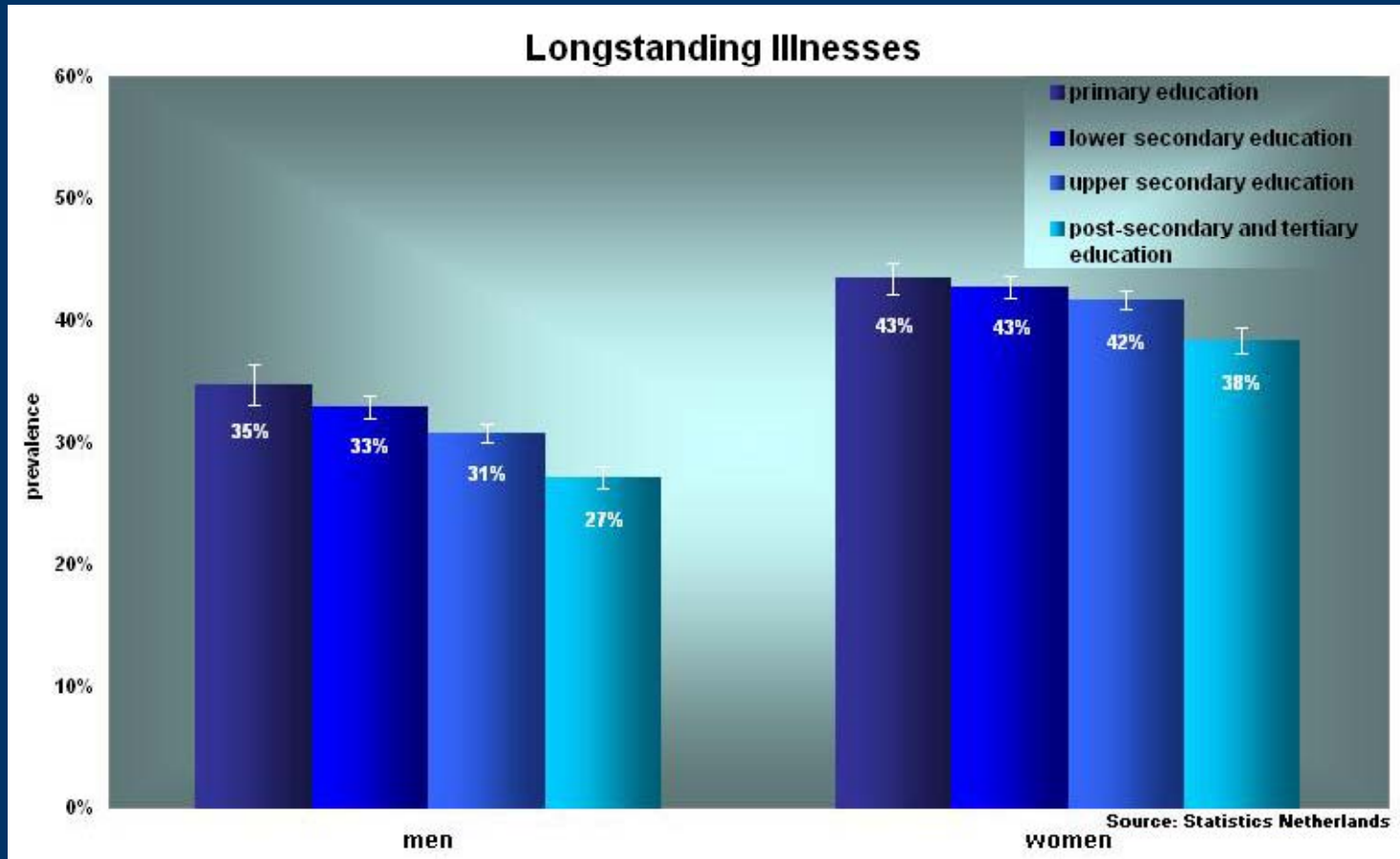
Health inequalities



Health inequalities



Health inequalities

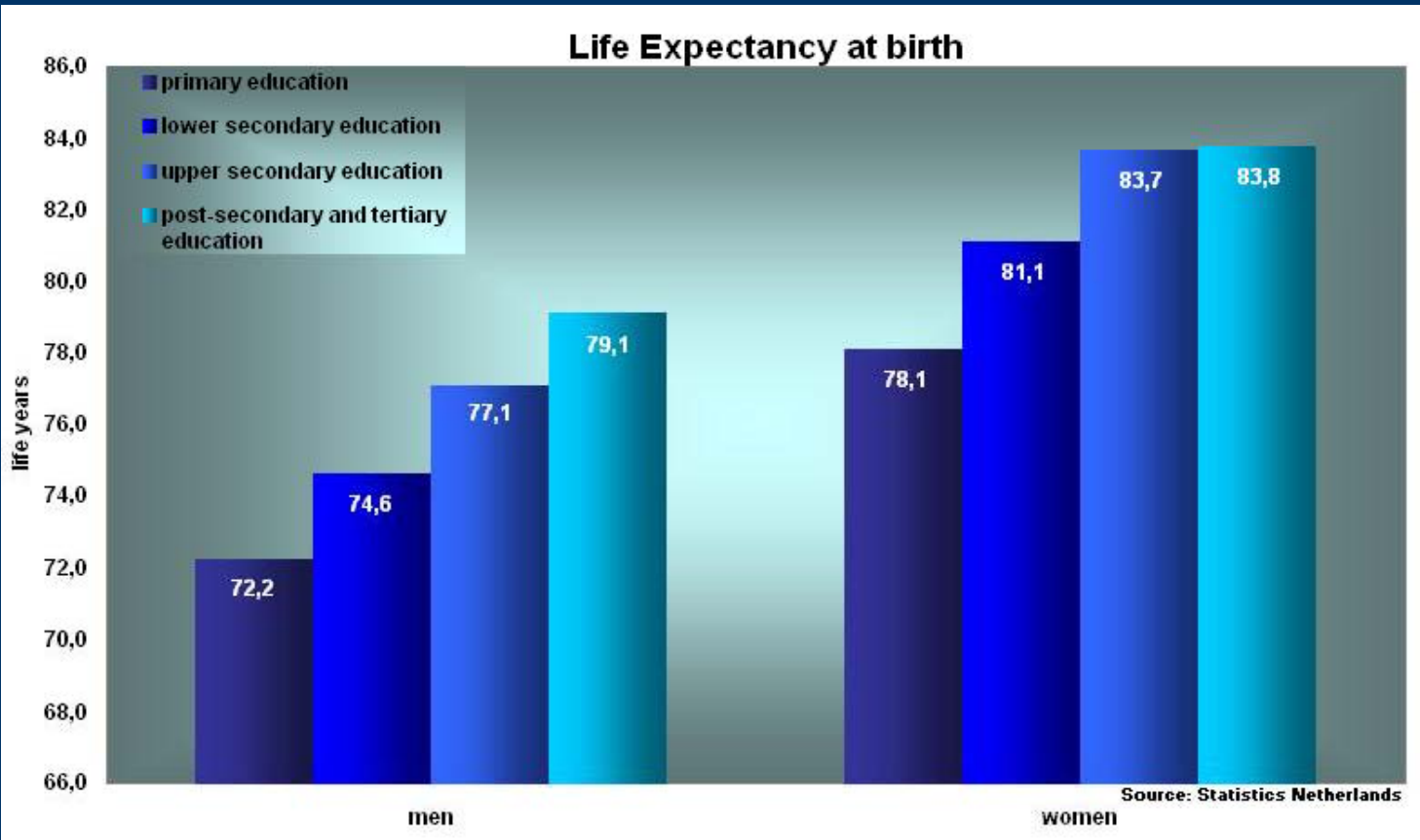


Methods ctd.

Mortality rates

- **Educational attainment from LFS**
- **Individual respondents on Labour Force Survey coupled with the Municipal Population Registration**
- **Administrative follow-up until death**
- **33.392 cases of death in 9 years**

Inequality in mortality

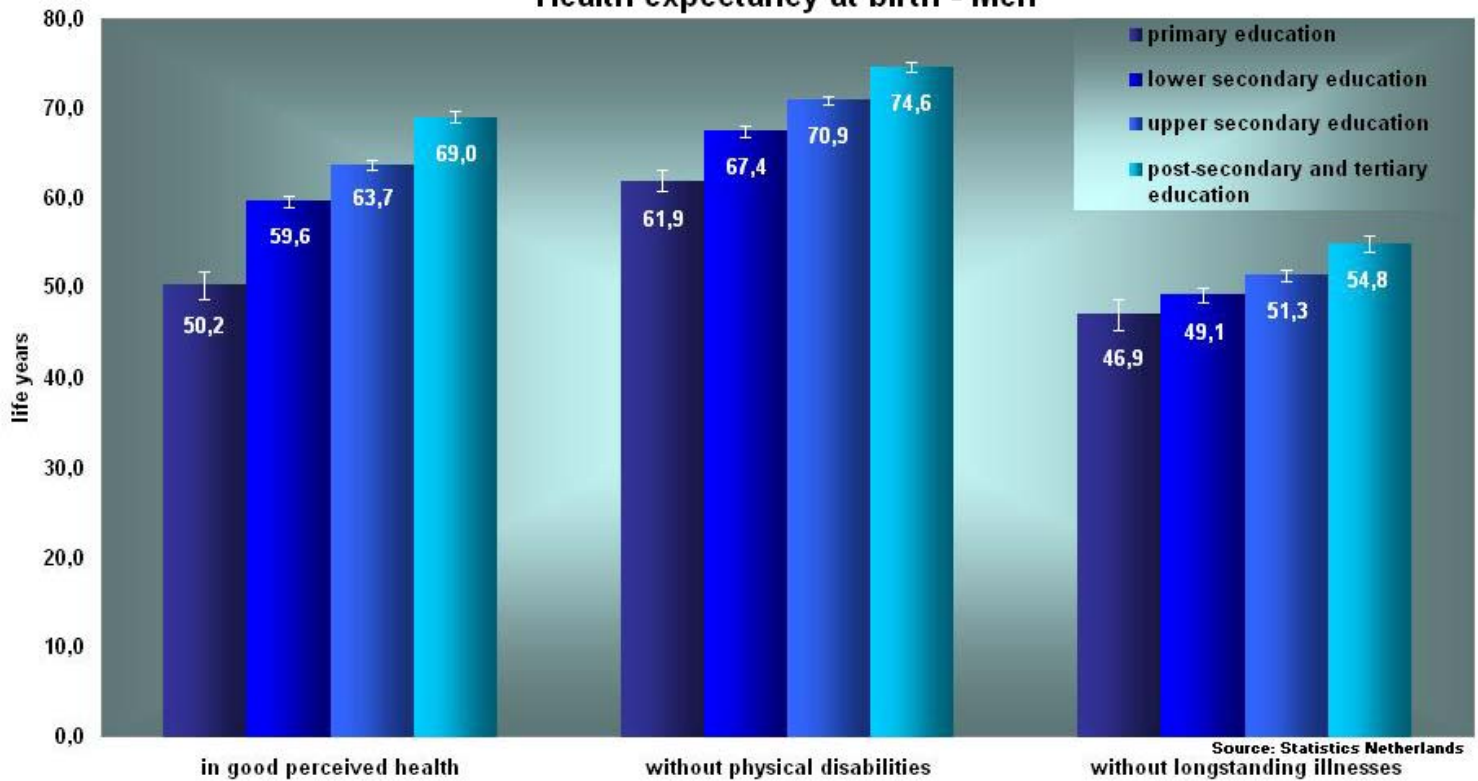


Health expectancy

Calculated using Sullivan's method for each definition of health and stratified by gender and socioeconomic group

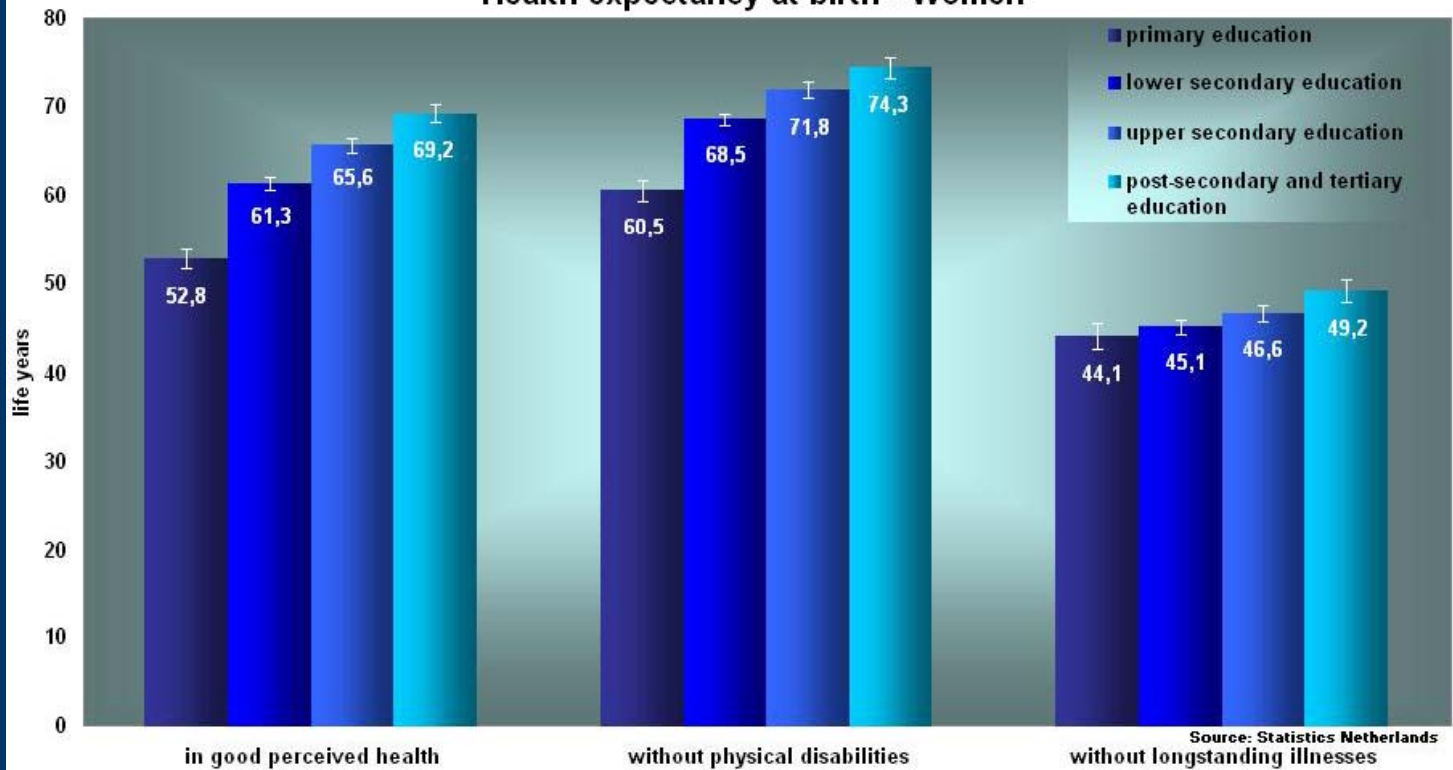
Delta-method used for calculating variances in LE and HE

Health expectancy at birth - Men



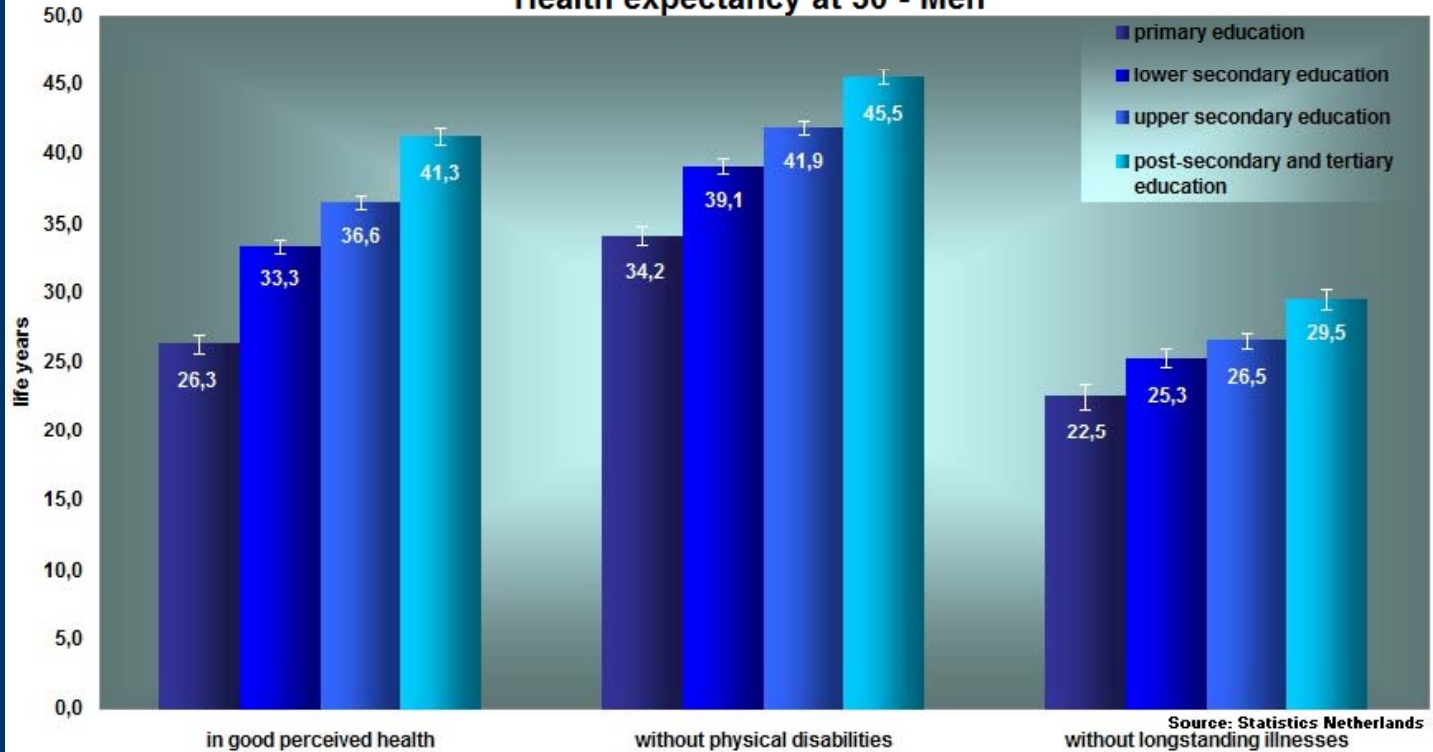
HE at birth Men	LE	HLE	$\frac{\%HLE}{LE}$	DFLE	$\frac{\%DFLE}{LE}$	MFLE	$\frac{\%MFLE}{LE}$
Primary	72,2	50,2	70%	61,9	86%	46,9	65%
Lower second.	74,6	59,6	80%	67,4	90%	49,1	66%
Upper second.	77,1	63,7	83%	70,9	92%	51,3	67%
Post-sec. + tert	79,1	69,0	87%	74,6	94%	54,8	69%

Health expectancy at birth - Women



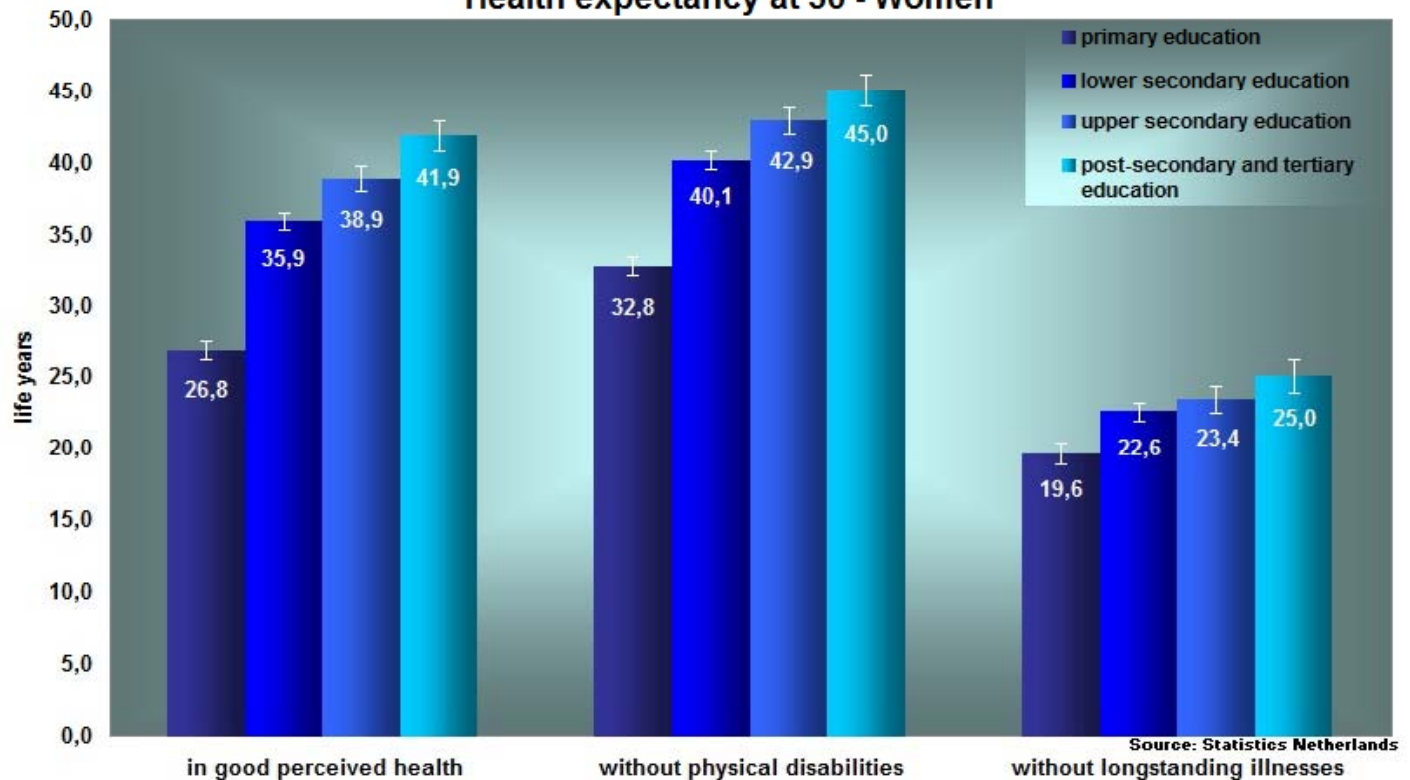
HE at birth Women	LE	HLE	$\frac{\%HLE}{LE}$	DFLE	$\frac{\%DFLE}{LE}$	MFLE	$\frac{\%MFLE}{LE}$
Primary	78,1	52,8	68%	60,5	77%	44,1	56%
Lower second.	81,1	61,3	76%	68,5	84%	45,1	56%
Upper second.	83,7	65,6	78%	71,8	86%	46,6	56%
Post-sec. + tert	83,8	69,2	83%	74,3	89%	49,2	59%

Health expectancy at 30 - Men



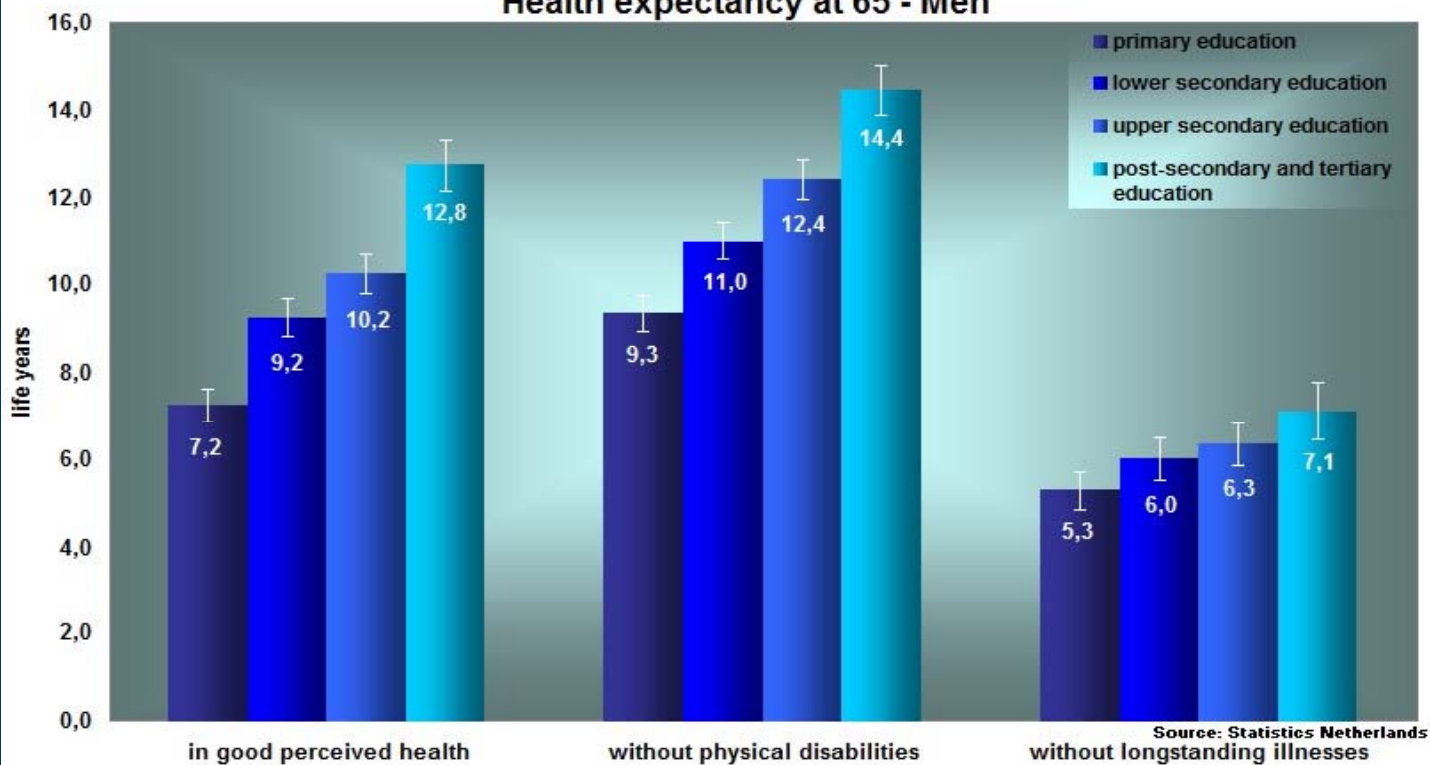
HE at 30 Men	LE	HLE	% $\frac{HLE}{LE}$	DFLE	% $\frac{DFLE}{LE}$	MFLE	% $\frac{MFLE}{LE}$
Primary	43,8	26,3	60%	34,2	78%	22,5	51%
Lower second.	45,9	33,3	73%	39,1	85%	25,3	55%
Upper second.	48,0	36,6	76%	41,9	87%	26,5	55%
Post-sec. + tert	49,9	41,3	83%	45,5	91%	29,5	59%

Health expectancy at 30 - Women



HE at 30 Women	LE	HLE	$\frac{\%HLE}{LE}$	DFLE	$\frac{\%DFLE}{LE}$	MFLE	$\frac{\%MFLE}{LE}$
Primary	49,3	26,8	54%	32,8	67%	19,6	40%
Lower second.	52,1	35,9	69%	40,1	77%	22,6	43%
Upper second.	54,3	38,9	72%	42,9	79%	23,4	43%
Post-sec. + tert	54,3	41,9	77%	45,0	83%	25,0	46%

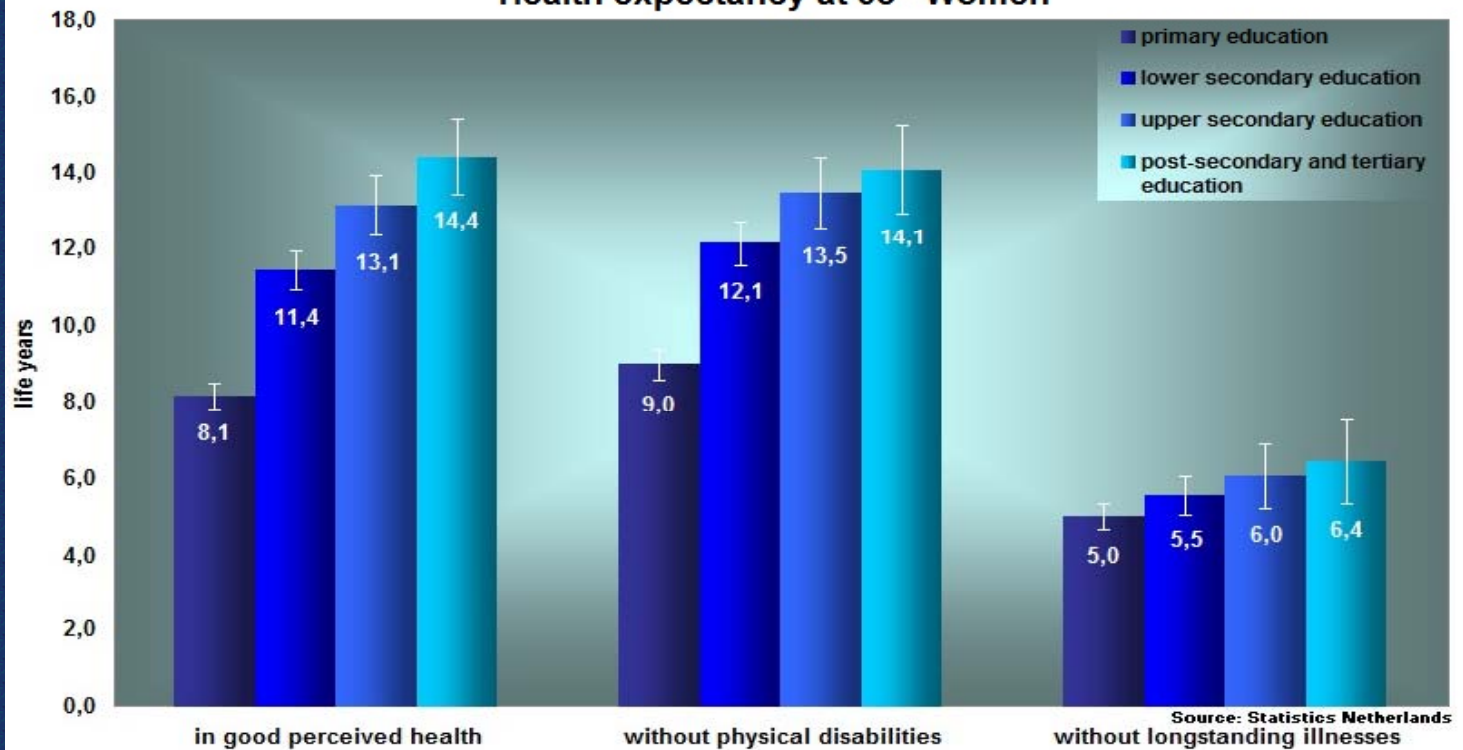
Health expectancy at 65 - Men



HE at 65 Men	LE	HLE	% <u>HLE</u> LE	DFLE	% <u>DFLE</u> LE	MFLE	% <u>MFLE</u> LE
Primary	13,9	7,2	52%	9,3	67%	5,3	38%
Lower second.	15,0	9,2	62%	11,0	73%	6,0	40%
Upper second.	16,3	10,2	63%	12,4	76%	6,3	39%
Post-sec. + tert	17,5	12,8	73%	14,4	82%	7,1	40%



Health expectancy at 65 - Women



HE at 65 Women	LE	HLE	% <u>HLE</u> LE	DFLE	% <u>DFLE</u> LE	MFLE	% <u>MFLE</u> LE
Primary	18,2	8,1	45%	9,0	49%	5,0	27%
Lower second.	20,1	11,4	57%	12,1	60%	5,5	28%
Upper second.	21,8	13,1	60%	13,5	62%	6,0	28%
Post-sec. + tert	21,4	14,4	67%	14,1	66%	6,4	30%

Conclusions

- **women on average live longer than men, but a smaller percentage of their lives is lived in good health**
- **people with lower educational attainment live for a shorter time. Moreover, they spend a larger percentage of their lives being unhealthy**
- **The socioeconomic gap in HE ranges from around 8 (longstanding illnesses) almost 20 (perceived health) years at birth between the lowest and highest educational groups**



Limitations

- **Relatively large numbers of non-respondents**
- **Institutionalised population excluded**
- **compulsary education**
 - greater homogeneity of educational level for younger generation
- **Short follow-up period for mortality**
 - estimates will become more precise over time, which will make time series possible
- **Children's educational level unknown**
 - parents' level as proxy

Future Research

- **monitor socioeconomic inequalities in HE using time series**
- **expand research by investigating influence of behavioral and lifestyle factors, such as smoking, on LE and HE**
- **use health and mortality data from a single sample by coupling HIS and municipal population register**

Thank you!

Mind the gap

**Socioeconomic status exerts a
considerable influence on health and life
expectancy**

