

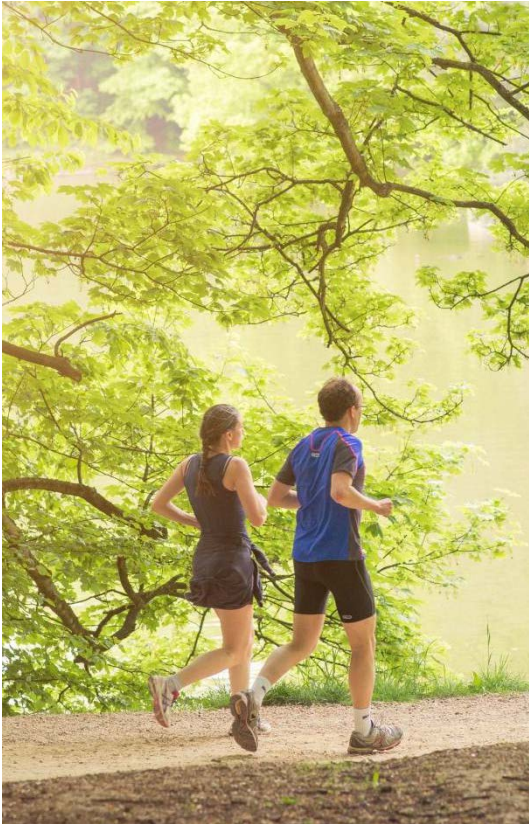
# A HEALTHY LIFE FOR ALL LONGER HEALTHY AND MORE ACTIVE? LESS UNHEALTHY LIFE?

Herman Van Oyen

Seminarie “Veel langer leven en actief blijven.  
Sociale, demografische en gezondheidsperspectieven”

FOD Sociale Zekerheid  
Brussels, 12/01/2015

# Mission of the WIV-IPS



The Scientific Institute of Public Health (WIV-ISP) is **the scientific reference** in the field of public health.

Through innovative research, analysis, monitoring activities and expert advice, we support health policy and policy making.

That way we contribute to a **healthy life** for all.

# **COMPOSITE HEALTH MEASURES:** ***Health expectancy indicators***



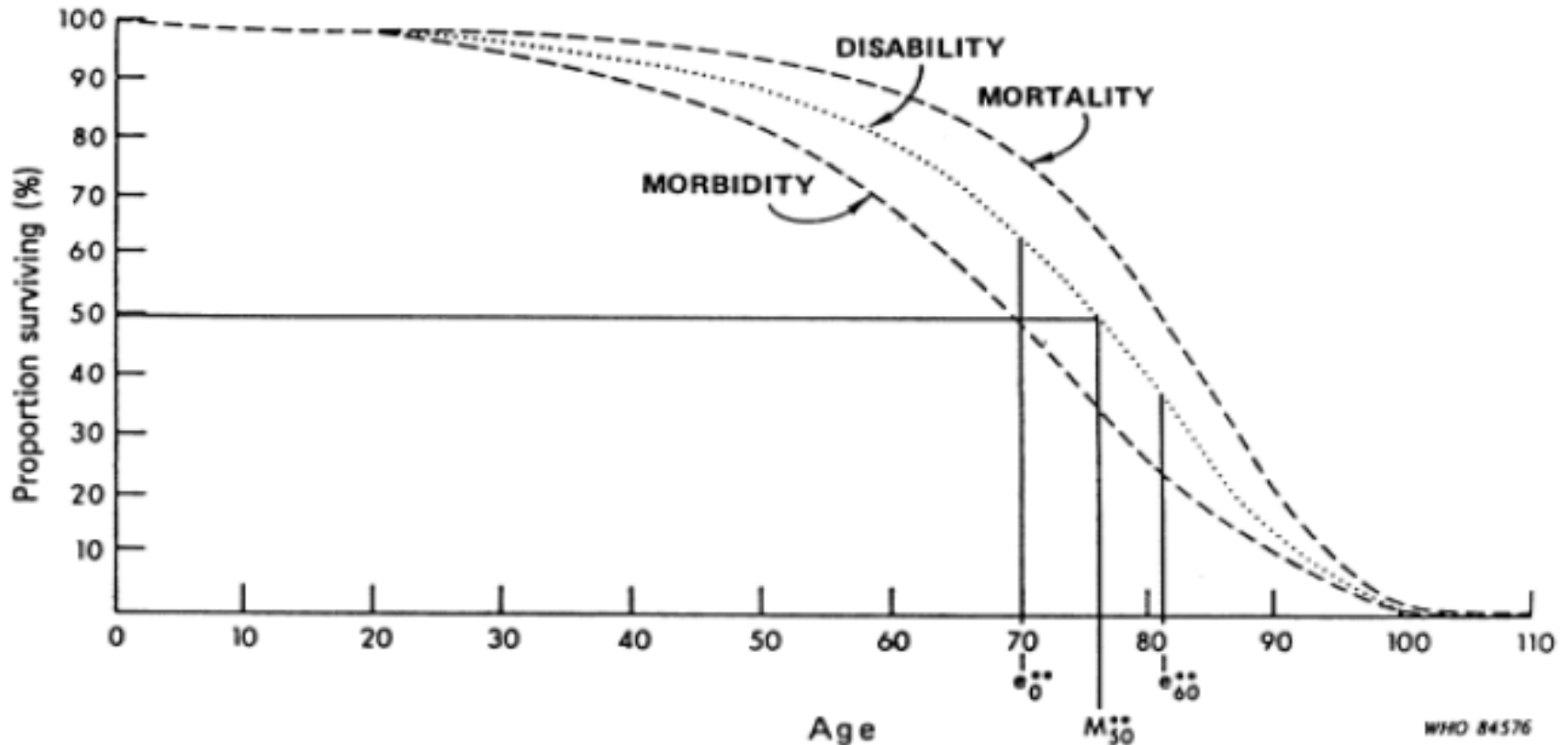
Divide life expectancy into life spent in different states of health, from say good to bad health (different levels of severity). It is at age  $x$ , the average number of years persons live in a health state

Add a dimension of quality to the quantity of life lived

Allow to better understand the interactions between mortality and morbidity.

Changing both the length of life, length of (un)healthy life is a result of simultaneous change in mortality and morbidity

# Model of health transitions



$e_0^{**}$  and  $e_{60}^{**}$  are the number of years of autonomous life expected at birth and at age 60, respectively.  
 $M_{30}^{**}$  is the age to which 50% of females could expect to survive without loss of autonomy.

WHO, 1984: Observed mortality and hypothetical morbidity and disability survival curves for females, USA, 1980

# Model of health transitions



**Compression of morbidity**: the number of years lived increases slower than the number of healthy years lived (Fries)



**Expansion of morbidity**: the number of years lived increases more than the number of healthy years lived (Gruenberg: Failure of success)



**Dynamic equilibrium**: there is more ill-health, but the severity levels are going down

# **Minimal European Health module (MEHM)**



To measure health expectancies across Europe:

## **General Perceived Health (Self assessed health (SAH)):**

How is your health in general? Is it...  
very good/ good / fair/ bad/ very bad

## **Chronic Health Problems**

Do you have any longstanding illness or longstanding health problem? [longstanding = which have lasted, or are expected to last, for 6 months or more].

Yes / No

## **Global Activity Limitation (GALI)**

For at least the past 6 months, to what extent have you been limited because of a health problem in activities people usually do?

Would you say you have been ...

severely limited/ limited but not severely/ not limited at all

# Health expectancies in Europe



- Life expectancy in good perceived health

*How is your health in general? Is it... Very good + Good*

- Life expectancy without chronic disease

*Do you have any chronic illness or condition? No*

- Life expectancy without activity limitation ⇔ HEALTHY LIFE YEARS (HLY)

*For at least the past 6 months, to what extent have you been limited because of a health problem in activities people usually do? Not limited at all*

HLY is a DISABILITY FREE LIFE EXPECTANCY measuring participation

**Life and health expectancies at age 65 based on activity limitation (Healthy Life Years), chronic morbidity and perceived health for EU27, in 2011, by gender (Health data from SILC)**

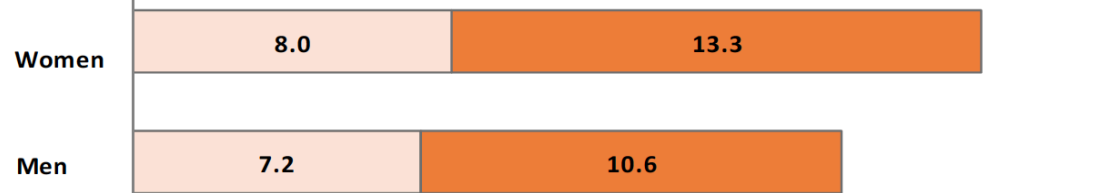
**Life Expectancy at age 65 and expected years**

- Without activity limitation
- With moderate activity limitation
- With severe activity limitation



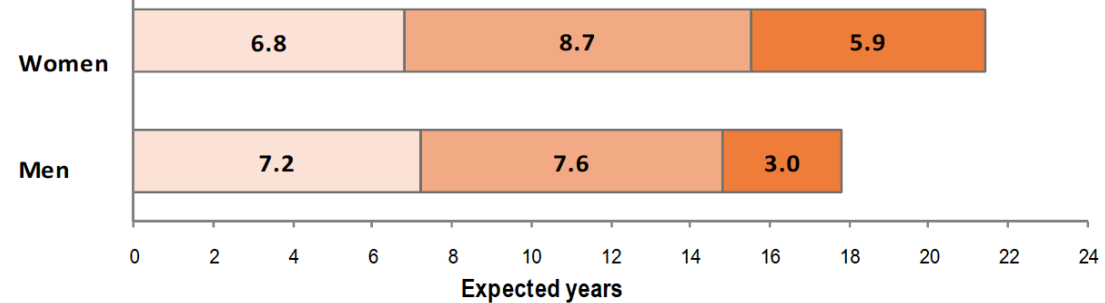
**Life Expectancy at age 65 and expected years**

- Without chronic morbidity
- With chronic morbidity



**Life Expectancy at age 65 and expected years**

- In very good or good perceived health
- In fair perceived health
- In bad or very bad perceived health





# *Health expectancy indicators and strategic policies*



**WHO-Europe target (1980-1990ties)**

**« add health to life »**

**WHO-Health21 targets:**

**healthy ageing as reflected in increases in life expectancy, disability-free life expectancy, and the proportion of older people who are healthy and at home**

# Health expectancy indicators and strategic policies in the EU



- **Overall strategic policies**

**Lisbon strategy** (2000-2010): development plan for the economy of the European Union.

Under the strategy, a stronger economy would create employment in the EU, alongside inclusive social and environmental policies, which would themselves drive economic growth even further

**HLY**: structural indicator at age 50 years to be measured every year

# Health expectancy indicators and strategic policies in the EU



- Overall strategic policies
  - Europe 2020 – **Innovation Union**
    - **Active and Healthy Ageing** through innovation

Target: increase the HLY at birth on EU average by **2 years** by 2020

See:

Lagiewka K. European Innovation Partnership on Active and Healthy Ageing: what have been the policy drivers and determinants to set a headline target of 2 additional Healthy Life Years at birth at EU average by 2020? Arch Public Health 2012;70:23.

Jagger C, et al. Mind the gap-reaching the European target of a 2-year increase in healthy life years in the next decade. Eur J Publ Health 2013 Mar 13;23(5):829-33.

# Other policy needs HLY/ GALI in EU



## HLY in other policies / policy documents

- **Social protection:**
  - HLY by social position
  - HLY for evaluation of investment in health systems
- **Justice:**
  - Right of people with disability
- **Finance:**
  - Evaluation of future health care cost

# 2020 TARGET: 2 additional HLY at birth



**Table 1 Life expectancy and healthy life years at birth within the European Union, 2008 and projections under different scenarios for 2020**

Males	2008			2020				Difference 2008-2020	
	LE	HLY	HLY/LE%	LE	HLY	HLY/LE%	LE	HLY*	HLY/LE%**
Compression	74.9	60.6	80.8	77.0	62.6	81.3	2.1	2.0	0.5
Expansion	74.9	60.6	80.8	77.0	60.6	78.6	2.1	0.0	-2.2
Dynamic Eq	74.9	60.6	80.8	77.0	62.2	80.9	2.1	1.6	0.1
Females	2008			2020				Difference 2008-2020	
	LE	HLY*	HLY/LE%	LE	HLY	HLY/LE%	LE	HLY*	HLY/LE%**
Compression	81.4	61.8	75.9	83.0	63.2	76.4	1.6	1.4	0.5
Expansion	81.4	61.8	75.9	83.0	61.8	74.5	1.6	0.0	-1.4
Dynamic Eq	81.4	61.8	75.9	83.0	63.0	75.9	1.6	1.2	0.0

EU average values of LE and HLY = simple mean of values of 27 EU members (2007 values for IT, BE and UK).

\*Difference in the HLY: gain/loss of number of years spent healthy.

\*\*Difference in the HLY/LE ratio: gain/loss in the proportion of remaining life spent healthy (HLY/LE%).

Lagiewka K. Arch Public Health 2012;70:23.

# 2020 TARGET: 2 additional HLY at birth



	2005			2010	2020			Dif 2020-2010
	LE	HLY	HLY/LE%	HLY	LE	HLY	HLY/LE%	HLY
MALES	76.25	61.00	0.80	61.30	77.00	62.70	0.81	1.40
FEMALES	81.97	62.30	0.76	61.90	83.00	62.40	0.75	0.50

Jagger C, et al. Eur J Publ Health 2013

# HEALTH EXPECTANCY INDICATORS IN BELGIUM



## • MORTALITY

- Cause specific mortality: has been problematic until recently
- Socio-economic position: ?

## • HEALTH

- **Census 2001**: one time only
- **Health Interview Survey**

**MOST OF THE ESTIMATION IS NOT DONE ROUTINELY BUT USING A PROJECT APPROACH**

### Strength

Many health dimensions including MEHM  
Cause of ill health => attributions  
Health determinants (life style, SES)  
Design: regional + national estimates

- **Survey on Income and Living Conditions**

### Strength

Every year  
SES

- **Other surveys: SHARE**

### Weakness

Time interval between surveys is long

### Weakness

Only MEHM  
No cause of ill health  
Design : national estimates

# HEALTH EXPECTANCY: 2001 MORTALITY & CENSUS



Leeftijd/ Geslacht	LE		HE		MFLE		DFLE		MDLE		SDLE	
	Jaar	Jaar	%	Jaar	%	Jaar	%	Jaar	%	Jaar	%	
<b>0 jaar</b>												
Mannen	75,42	58,00	76,91	59,70	79,15	62,82	83,29	6,62	8,78	5,98	7,93	
Vrouwen	81,67	59,46	72,81	63,38	77,61	66,14	80,99	7,81	9,56	7,72	9,45	
<b>65 jaar</b>												
Mannen	16,24	6,57	40,45	8,55	52,64	9,67	59,56	3,01	18,53	3,55	21,9	
Vrouwen	20,23	7,05	34,83	10,12	50,02	11,16	55,15	3,74	18,49	5,33	26,4	

*Tabel 35: Levensverwachting (LE), Gezonde levensverwachting (HE), Morbiditeitsvrije levensverwachting (MFLE) en levensverwachting zonder beperkingen (DFLE), met matige (MDLE) en met ernstige beperkingen (SDFL) in jaren en als percentage van levensverwachting bij mannen en vrouwen op de leeftijd 0 en 65 jaar*

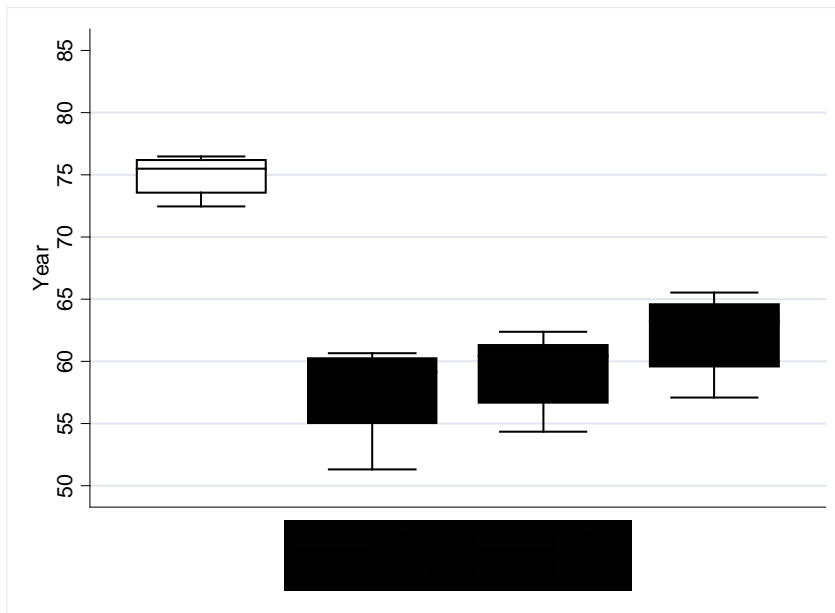
Socio-economische enquête, 2001: Monographie Gezondheid en mantelzorg



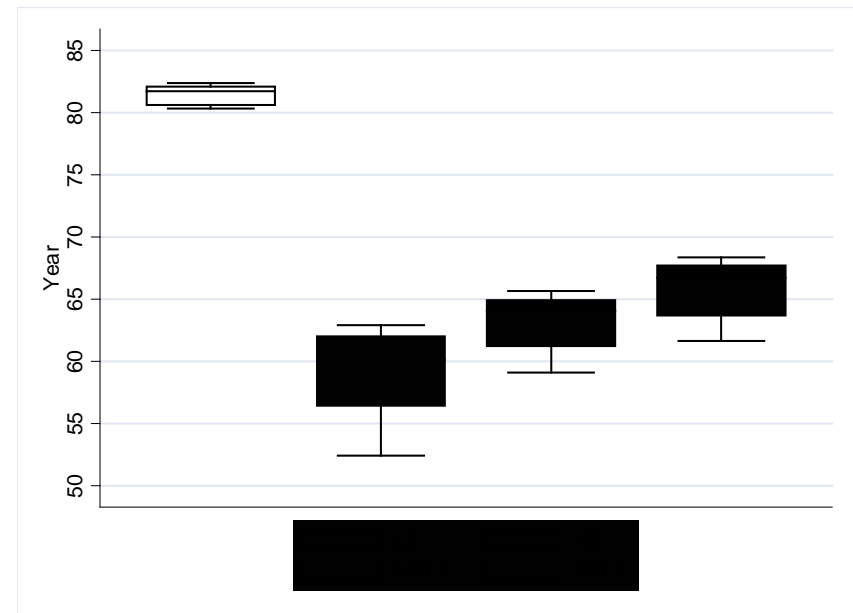
# HEALTH EXPECTANCY: 2001 CENSUS

The distribution of the Life Expectancy (LE), the healthy (HE), morbidity free (MFLE) and disability free (DFLE) life expectancy at birth among provinces by gender, Belgium 2001.

Males



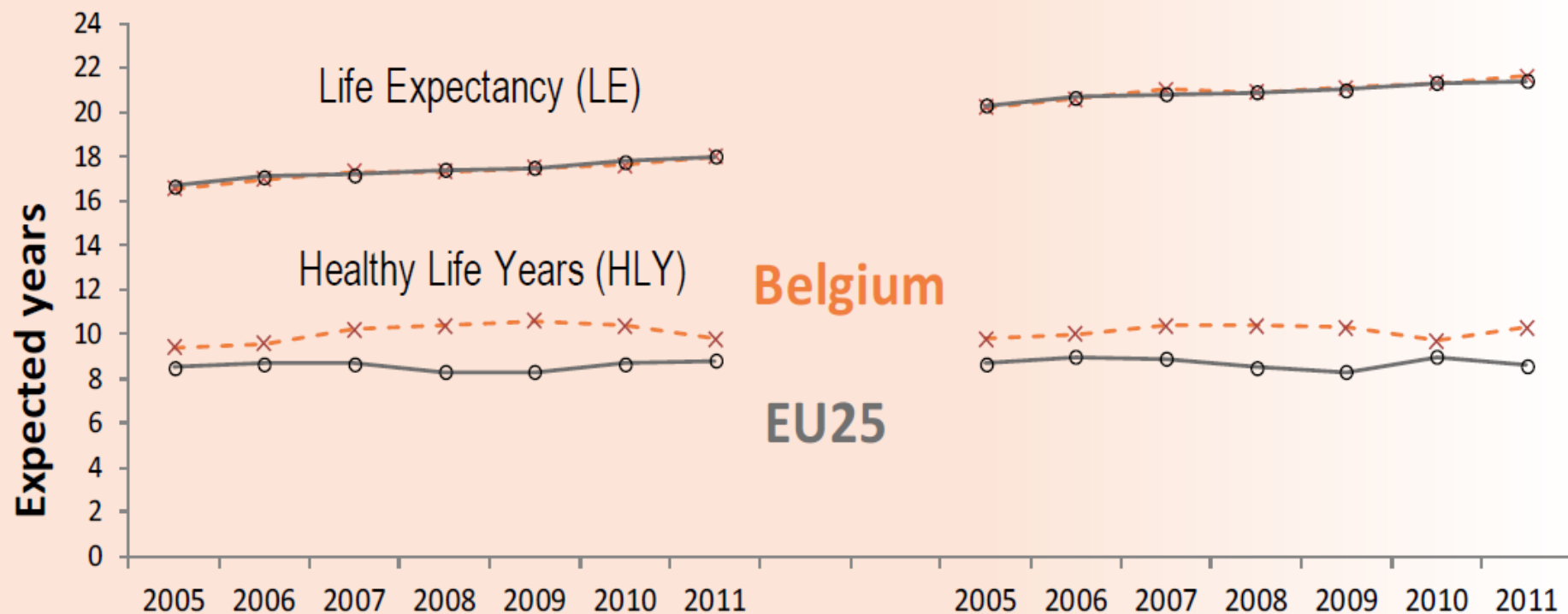
Females



# HLY at age 65 over time: SILC

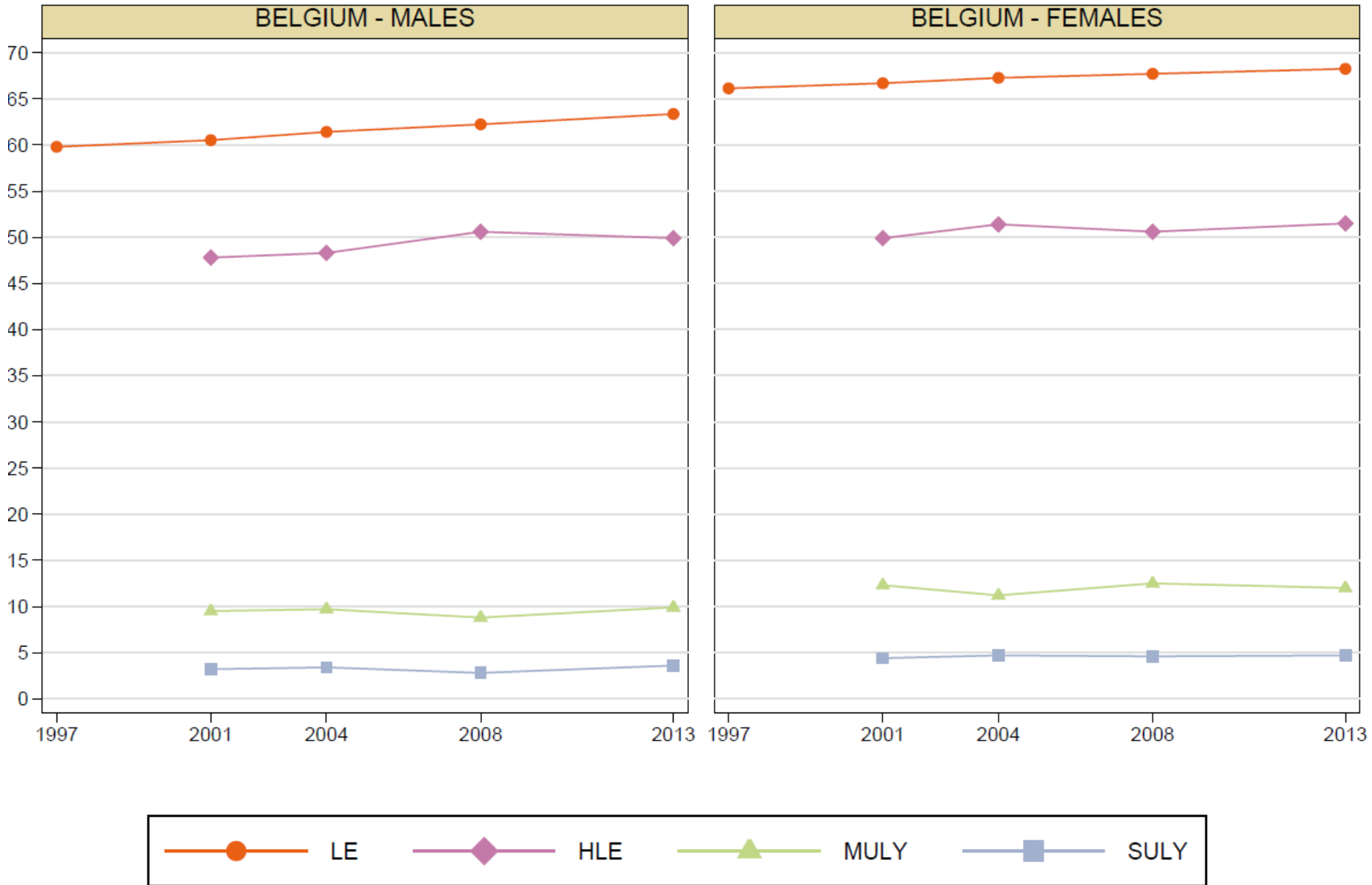
MEN

WOMEN



Belgium	2005	2006	2007	2008	2009	2010	2011			2005	2006	2007	2008	2009	2010	2011
LE	16.6	17.0	17.3	17.3	17.5	17.6	18.0			20.2	20.6	21.0	20.9	21.1	21.3	21.6
HLY	9.4	9.6	10.2	10.4	10.6	10.4	9.8			9.8	10.0	10.4	10.4	10.3	9.7	10.3
% HLY/LE	57%	56%	59%	60%	61%	59%	54%			49%	49%	50%	50%	49%	46%	48%

# HLY at age 15 over time: HIS



# *Health expectancy indicators by SES*



**Mortality by SES => LE by SES**

**Follow-up census**

**Follow-up surveys: SILC  
HIS**

**Health by SES**

**Census 2001**

**Surveys: SILC  
HIS**

# Health expectancy indicators by SES

- **Mortality follow-up of 1991 census**
- **HIS 1997**

**Table 4** At age 25 years, the size of the inequity and the difference in size of the inequity in life expectancy<sup>a</sup> between age 25 and 74 (and 95% confidence interval) by educational attainment (relative social position) in the Flemish and Walloon region. National Mortality Database, 1991–1996, Belgium

Level of education	Flemish region		Walloon region		Difference in inequity in life expectancy between the Regions
	Life expectancy	Inequity in life expectancy	Life expectancy	Inequity in life expectancy	
<b>Men</b>					
Bottom	44.86 (44.84–44.89)	1.62 (1.57–1.66)	42.77 (42.73–42.80)	2.15 (2.09–2.21)	0.53 (0.43–0.64)
Top	46.48 (46.46–46.50)		44.92 (44.89–44.94)		
All	45.77 (45.75–45.79)		43.88 (43.86–43.91)		
<b>Women</b>					
Bottom	46.86 (46.84–46.88)	1.04 (1.01–1.07)	45.44 (45.42–45.46)	1.46 (1.41–1.50)	0.42 (0.34–0.49)
Top	47.90 (47.89–47.91)		46.90 (46.88–46.91)		
All	47.42 (47.41–47.43)		46.16 (46.15–46.18)		

# Health expectancy indicators by SES

Census 1991, 2001: 3 yrs mortality follow-up  
HIS 1997, 2004

**Table 2** Life expectancy and expected years of life without and with disability at age 25 by gender and educational level, Belgium 1990s–2000s

	Females					
	1990s	2000s	Change	Inequality		
				1990s	2000s	Change
<b>Life expectancy (years)</b>						
Tertiary	58.25	60.61	2.36			
Higher secondary	57.61	58.93	1.32	0.64	1.68	1.04
Lower secondary	57.13	58.40	1.27	1.12	2.21	1.09
Primary	55.29	56.36	1.07	2.96	4.25	1.29
No diploma	54.59	54.09	-0.50	3.66	6.52	2.86
Total	55.60	57.17	1.57			
<b>DFLE (years)</b>						
Tertiary	44.73 (42.55–46.91)	47.10 (45.57–48.63)	2.37			
Higher secondary	43.41 (41.75–45.07)	41.27 (39.84–42.70)	-2.14	1.32	5.83*	4.51*
Lower secondary	40.88 (39.24–42.53)	42.01 (40.63–43.38)	1.13	3.85*	5.09*	1.24
Primary	34.70 (32.58–36.82)	36.27 (34.29–38.25)	1.57	10.03*	10.83*	0.80
No diploma	33.31 (29.43–37.20)	28.92 (25.56–32.27)	-4.39	11.42*	18.18*	6.76
Total	38.91 (38.15–39.67)	40.42 (39.79–41.05)	1.51			
<b>Life expectancy with dis</b>						
Tertiary	13.52 (11.34–15.69)	13.51 (11.98–15.04)	-0.01			
Higher secondary	14.20 (12.54–15.86)	17.66 (16.23–19.09)	3.46	-0.68	-4.15*	-3.47
Lower secondary	16.25 (14.61–17.90)	16.39 (15.02–17.77)	0.14	-2.73	-2.88	-0.15
Primary	20.59 (18.47–22.71)	20.09 (18.12–22.07)	-0.50	-7.07*	-6.58*	0.49
No diploma	21.28 (17.40–25.16)	25.17 (21.81–28.53)	3.89	-7.76*	-11.66*	-3.90
Total	16.70 (15.94–17.46)	16.76 (16.13–17.39)	0.06			

# Health expectancy indicators by SES



**Table 5** Decomposition of the inequality by educational level in LE and expected years of life without disability (DFLE) and with disability (DLE) at age 25 years into a mortality and disability part, Females, Belgium 1990s–2000s

Education	1990s			2001								
	LE	DFLE	DLE	LE	DFLE	DLE	LE	DFLE	DLE	LE	DFLE	DLE
Tertiary	58.25	44.73	13.52				60.61	47.10	13.51			
Higher secondary	57.61	43.41	14.20				58.93	41.27	17.66			
Difference <sup>a</sup>				0.64	1.32	−0.68				1.68	5.84	−4.15
Difference due to mortality effect				0.64	0.37	0.26				1.68	0.70	0.98
Difference due to disability effect				0.00	0.95	−0.95				0.00	5.13	−5.13
Lower secondary	57.13	40.88	16.25				58.40	42.01	16.39			
Difference				1.11	3.85	−2.74				2.21	5.10	−2.88
Difference due to mortality effect				1.11	0.63	0.49				2.21	0.95	1.27
Difference due to disability effect				0.00	3.22	−3.22				0.00	4.15	−4.15
Primary education	55.29	34.70	20.59				56.36	36.27	20.09			
Difference				2.96	10.03	−7.07				4.25	10.83	−6.58
Difference due to mortality effect				2.96	1.41	1.55				4.25	1.57	2.68
Difference due to disability effect				0.00	8.62	−8.62				0.00	9.26	−9.26
No diploma	54.59	33.31	21.28				54.09	28.92	25.17			
Difference				3.65	11.42	−7.76				6.53	18.19	−11.66
Difference due to mortality effect				3.65	1.96	1.70				6.53	2.22	4.30
Difference due to disability effect				0.00	9.46	−9.46				0.00	15.96	−15.96

a: Difference with tertiary education

Van Oyen H. EJPH, 21, 781-787, 2011



# Health expectancy indicators by SES



**Table 2** Life expectancy and expected years of life without and with disability at age 25 by gender and educational level, Belgium 1990s–2000s

	Males					
	1990s	2000s	Change <sup>a</sup>	Inequality <sup>a</sup>		
				1990s	2000s	Change
<b>Life expectancy (years)</b>						
Tertiary	52.83	55.27	2.44			
Higher secondary	50.67	52.61	1.94	2.16	2.66	0.50
Lower secondary	49.71	51.40	1.69	3.12	3.87	0.75
Primary	47.87	49.48	1.61	4.96	5.79	0.83
No diploma	47.46	47.79	0.33	5.37	7.48	2.11
Total	49.17	51.43	2.26			
<b>DFLE (years)</b>						
Tertiary	43.47 (42.14–44.80) <sup>b</sup>	46.33 (45.18–47.48)	2.86			
Higher secondary	42.64 (41.36–43.92)	41.54 (40.37–42.71)	–1.10	0.83	4.79*	3.96*
Lower secondary	37.43 (35.88–38.97)	39.71 (38.35–41.07)	2.28	6.04*	6.62*	0.58
Primary	32.63 (30.77–34.48)	36.65 (35.01–38.29)	4.02	10.84*	9.68*	–1.16
No diploma	26.47 (22.00–30.94)	27.75 (23.32–32.18)	1.28	17.00*	18.58*	1.58
Total	38.05 (37.44–38.67)	40.47 (39.93–41.01)	2.42			
<b>Life expectancy with disability (years)</b>						
Tertiary	9.36 (8.03–10.69)	8.94 (7.79–10.09)	–0.42			
Higher secondary	8.03 (6.75–9.31)	11.08 (9.91–12.25)	3.05	1.33	–2.14	–3.47*
Lower secondary	12.29 (10.74–13.83)	11.69 (10.33–13.06)	–0.6	–2.93*	–2.75*	0.18
Primary	15.24 (13.39–17.10)	12.83 (11.19–14.47)	–2.41	–5.88*	–3.89*	1.99
No diploma	20.99 (16.52–25.46)	20.04 (15.61–24.48)	–0.95	–11.63*	–11.10*	0.53
Total	11.12 (10.51–11.73)	10.97 (10.43–11.51)	–0.15			

a: Absolute difference

b: 95% confidence interval

\*Statistical significant difference at the 0.05 level

Van Oyen H. EJPH, 21, 781-787, 2011



# Health expectancy indicators by SES



**Table 4** Decomposition of the inequality by educational level in LE and expected years of life without disability (DFLE) and with disability (DLE) at age 25 years into a mortality and disability part, Males, Belgium 1990s–2000s

Education	1990s			2000s								
	LE	DFLE	DLE	LE	DFLE	DLE	LE	DFLE	DLE	LE	DFLE	DLE
Tertiary education	52.83	43.47	9.36				55.27	46.33	8.94			
Higher secondary	50.67	42.64	8.03				52.61	41.54	11.08			
Difference <sup>a</sup>				2.16	0.83	1.32				2.66	4.80	-2.14
Difference due to mortality effect				2.16	1.21	0.95				2.66	1.49	1.17
Difference due to disability effect				0.00	-0.37	0.37				0.00	3.31	-3.31
Lower secondary	49.71	37.43	12.29				51.40	39.71	11.69			
Difference				3.12	6.05	-2.93				3.87	6.63	-2.75
Difference due to mortality effect				3.12	1.60	1.52				3.87	2.26	1.62
Difference due to disability effect				0.00	4.45	-4.45				0.00	4.37	-4.37
Primary	47.87	32.63	15.24				49.48	36.65	12.83			
Difference				4.96	10.84	-5.89				5.79	9.68	-3.89
Difference due to mortality effect				4.96	2.53	2.43				5.79	3.17	2.62
Difference due to disability effect				0.00	8.32	-8.32				0.00	6.51	-6.51
No diploma	47.46	26.47	20.99				47.79	27.75	20.04			
Difference				5.37	17.00	-11.63				7.48	18.58	-11.10
Difference due to mortality effect				5.37	2.28	3.09				7.48	3.53	3.95
Difference due to disability effect				0.00	14.72	-14.72				0.00	15.06	-15.06

a: Difference with tertiary education

Van Oyen H. EJPH, 21, 781-787, 2011

# HLY by SES: surveys versus census

**Table 5 Comparison of the life expectancy (LE) and healthy life years (HLY) calculated using mortality rates based on the Census 2001-2004, the HIS 2001-2010, and the SILC 2004-2009, females, aged 25 years, Belgium**

Females Education	Mortality HIS/Morbidity HIS			Mortality Census/Morbidity HIS			Diff HIS-Census	
	LE	HLY	HLY 95% Confidence interval	LE	HLY	HLY 95% Confidence interval	LE	HLY (p-value)
Primary education	56.2	33.5	30.8-36.2	56.2	33.7	31.3-36.0	0.0	-0.2 (0.96)
Lower secondary	57.3	40.9	39.0-42.9	58.0	41.3	39.6-43.0	-0.7	-0.4 (0.82)
Higher secondary	58.6	42.1	39.7-44.4	58.5	42.0	39.9-44.0	0.1	0.1 (0.97)
Higher education	61.6	49.8	46.9-52.6	59.9	48.6	46.3-50.8	1.7	1.2 (0.73)
<b>Difference highest-lowest (p-value)</b>	5.4	16.3 (p < 0.01)		3.7	14.9 (p < 0.01)			

Source of data: mortality follow-up of the HIS 2001-2010 and mortality follow-up of the Census 2001-2004

Females Education	Mortality SILC/Morbidity SILC			Mortality Census/Morbidity SILC			Diff SILC-Census	
	LE	HLY	HLY 95% Confidence interval	LE	HLY	HLY 95% Confidence interval	LE	HLY (p-value)
Primary education	58.1	30.8	28.0-33.6	56.2	30.0	27.4-32.6	1.9	0.8 (0.83)
Lower secondary	61.5	37.8	35.2-40.4	58.0	35.7	33.6-37.7	3.5	2.1 (0.47)
Higher secondary	59.1	40.2	37.9-42.5	58.5	39.6	38.0-41.3	0.6	0.6 (0.79)
Higher education	61.9	45.4	42.5-48.3	59.9	44.0	42.0-46.1	2.0	1.4 (0.68)
<b>Difference highest-lowest (p-value)</b>	3.8	14.6 (p < 0.01)		3.7	14.0 (p < 0.01)			

Source of data: mortality follow-up of the SILC 2004-2009 and mortality follow-up of the Census 2001-2004

# HLY AT AGE 50 BY SES

	Mannen		Vrouwen	
	Levens-verwachting (jaar)	Levens-verwachting zonder beperkingen (jaar)	Levens-verwachting (jaar)	Levens-verwachting zonder beperkingen (jaar)
Hoger onderwijs	34,31	21,63	37,57	22,18
Hoger secundair	29,89	18,22	34,77	18,55
Lager secundair	27,89	15,91	36,47	20,4
Lager of minder	24,73	13,33	33,56	14,5

**SILC 2004, with mortality follow-up 2004-2009**

# Health expectancy indicators by SES

## FUTURE WORK



To set up a **time series** for HLY by SES

- SILC 2004-2014
- Mortality follow-up: 5 yrs (up to 2019)
- Cause specific mortality follow-up: 5 yrs (up to 2019)

In 2015: first exercise with the 2004-2009 series

- Trend in absolute and relative inequality
- Decomposition of inequality: mortality  $\Leftrightarrow$  disability

# Health expectancy indicators by LIFE STYLE FACTORS : FUTURE WORK



**Healthy Life Years and Smoking. A Health Impact Assessment of the role of smoking in disability and disability-free life expectancy in Belgium (HYSMOKHIA)**

## OBJECTIVES

- insights into the determinants of the smoking related differences in disability and DFLE over time and between men and women.
- the impact of policy interventions on these differences

# **Health expectancy indicators by Smoking**

## **FUTURE WORK**



### **HYSMOKHIA**

- 1. the contribution of cause specific mortality on the secular trend in LE and the gender differences in LE;**
- 2. the effect of the prevalence of cause specific morbidity and their disability impact on the prevalence of disability by period and gender;**
- 3. the effect of mortality versus disability and the age specific and cause specific morbidity on the differences in DFLE and LE with disability (LEWD) over time and by gender;**
- 4. the effect of the smoking prevalence on the difference in LE, DFLE and LEWD over time and by gender.**
- 5. The impact of reducing the prevalence of smoking through interventions on the difference in LE, DFLE and LEWD over time and by gender.**

# Health expectancy indicators by Smoking

**Table 4 Disability Free Life Expectancy (DFLE<sub>30</sub>), (Severe) Disability Life Expectancy (DLE(*S*)<sub>30</sub>), Life Expectancy (LE<sub>30</sub>) and the % of remaining life without disability (% DFLE/LE<sub>30</sub>) at age 30 by smoking status, Health Interview Survey 1997 and 2001 and follow-up until respectively 31/12/2007 and 31/12/2010, Belgium**

Smoking status	DFLE <sub>30</sub>	DLE <sub>30</sub>	DLE_ <i>S</i> <sub>30</sub>	LE <sub>30</sub>	%DFLE/LE <sub>30</sub>
Males					
Never smoker	38.30 (36.86; 39.87)*	12.89 (11.46; 14.71)	3.00 (2.17; 4.14)	51.19 (49.62; 53.10)	74.82 (71.82; 77.38)
Ex-smoker	35.28 (34.28; 36.27)	13.23 (12.34; 14.19)	2.42 (1.97; 2.87)	48.51 (47.33; 49.69)	72.72 (70.97; 74.39)
Smoker	31.50 (30.47; 32.65)	11.82 (10.76; 12.95)	1.73 (1.29; 2.32)	43.32 (42.27; 44.56)	72.72 (70.54; 74.82)
Females					
Never smoker	36.99 (36.06; 37.90)	19.21 (18.05; 20.65)	5.51 (4.78; 6.37)	56.20 (54.90; 57.71)	65.82 (63.95; 67.37)
Ex-smoker	34.09 (32.75; 35.38)	19.52 (17.93; 21.45)	4.53 (3.55; 5.91)	53.60 (51.99; 55.73)	63.59 (61.05; 66.04)
Smoker	30.73 (29.12; 32.59)	17.29 (15.36; 20.52)	3.28 (2.06; 5.60)	48.02 (46.31; 51.28)	64.00 (59.69; 67.43.)

\*: 95% confidence interval.