#### Séminaire PSED – 3 février 2015

Analyse de l'évolution de l'espérance de vie sans incapacité en France : une approche multi-sources

Health expectancies: Why and how?

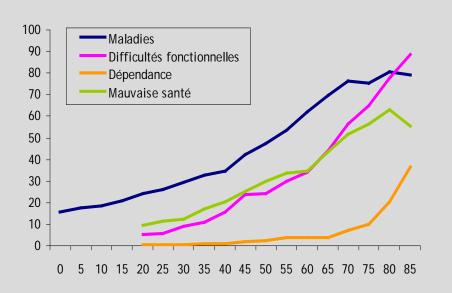
**Emmanuelle Cambois** 



## Health expectancies Why and how?

Concepts, definitions, indicators Estimates for France Focus: gender, social, trends Patterns and pathways

## **WHY?** Consequences of the increasing life expectancy

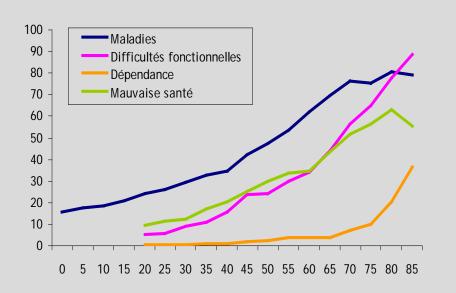


- More people with high risks of diseases (i.e. elder people)
- "New" diseases previously censured by high mortality (Alzheimer)
- Increasing surviving with disabling diseases and disability (and complex situations)

#### Health trends and ageing: 3 theories

- Pandemic of mental troubles, chronic conditions and disability (Gruenberg, 1977;
   Kramer, 1980) expansion of the years of poor health over the life course
- Compression of morbidity (Fries, 1980) poor health only prior death
- Dynamic equilibrium (Manton, 1982) 
  more but less severe

## WHY? Consequences of the increasing life expectancy



- More people with high risks of diseases (i.e. elder people)
- "New" diseases previously censured by high mortality (Alzheimer)
- Increasing surviving with disabling diseases and disability (and complex situations)

### Public health/social challenges: Caring for people with disability

- ✓ Organisation, planification of (institutional) needs
- ✓ Who cares: Inter/intra-generational solidarity or formal assistance?
- ✓ Pensions: paying for formal assistance?
- ✓ ... Policies promoting healthy/active aging (at work?) / sustenability of pension systems

WHO (1984): « not sufficient to add *years* to life we need also to add *life* to years »



### HOW? Life and Health expectancy

#### **Health expectancies**

(Sanders, 1964; Sullivan 1971; Katz, 1983...

France: Robine & Colvez, 1984)

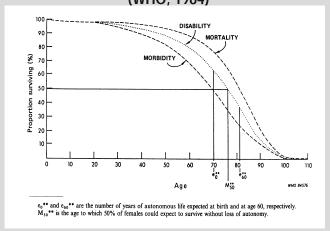
=> Counting the number of years to be lived in healthy/unhealthy states (as many indicators as health measures: diseases, self-perception, disability...)

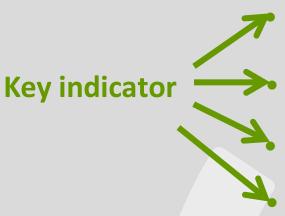
To assess the concurrent mortality /morbidity dynamics at the population level

And to document the health&aging theories:

Are years gained in good health or with diseases and disability?

The observed mortality and hypothetical morbidity and disability survival curves for females. United States of America, 1980. (WHO, 1984)





To monitor health trends in the ageing context: ex. used in France to model the development of the dependent population

To quantify public health objectives: at the EU level « a 2 year gain in Healthy life years by 2020 »

To question equity: Occupational differencials in health expectancies and retirement age

A contextual indicator: HLY in the list of the EU structural indicators



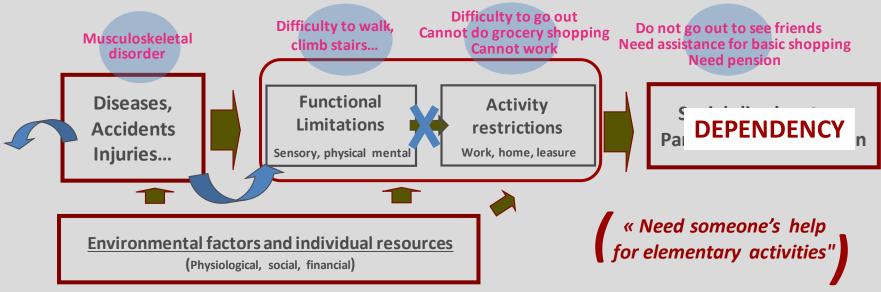
### (a) How? Analyzing trends in health expectancies

- What do HEs measure and how?
  - => Which health dimensions: diseases, disability...
  - => From which source: population based health survey
  - => Repeated surveys? Stability/comparability of the sources?



### HOW? Which health dimensions?

### Wood model (1975) and the WHO classification of handicap

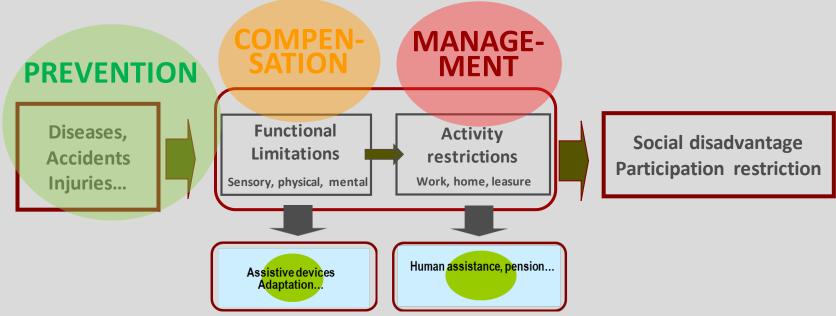


- Unequal risk exposures (work condition, life-style, etc.)
- Unequal chance for compensation (access to care/devices, work-place adaptation, etc)
- Unequal consequences on social participation, risk of exclusion (from school, work...)



### HOW? Which health dimensions?

Wood model (1975) and the WHO classification of handicap



- Unequal risk exposures (work condition, life-style, etc.)
- Unequal chance for compensation (access to care/devices, work-place adaptation, etc)
- Unequal consequences on social participation, risk of exclusion (from school, work...)

→ → (Medical / Social) interventions to lower exposures

(Technical) interventions to promote the compensation

(Social) intervention to manage / cope with



### (a) How? Analyzing trends in health expectancies

- What do HEs measure and how?
  - => Which health dimensions: diseases, disability...
  - => From which source: population based health survey
    - ✓ Longitudinal to model pathways between health status and death
    - ✓ Cross-sectional combining life tables and prevalence (Sullivan, 1971)
      - Need both mortality and morbidity data for the same population or subpopulations (problems for regional and for SES estimates)



### (a) How? Analyzing trends in health expectancies

- What do HEs measure and how?
  - => Which health dimensions: diseases, disability...
  - => From which source: population based health survey
  - => Repeated surveys? Stability/comparability of the sources?



## Data sources available in France in 2008 Survey with <u>self-reported</u> information

Tableau 1: Principales caractéristiques des enquêtes utilisées pour le calcul des EVSI en France Métropolitaine

Enquêtes		Caractéristiques de l'enquête				Questions sur les limitations fonctionnelles (nombre de questions)			Questions sur les restrictions d'activité (nombre de questions)		
Enquetes	Année	Mode de recueil	Age et taux de réponse (TR)	Echantillon des 50 ans+ (%non pondéré ≥65ans)	LF physiques	LF sensorielles	LF cognitives	ADL	IADL	(EU)	
HID	1999	face-à-face	Tous TR1999 = 77,8%	11 097 (68%)	5	2	-	5	(	GALI	
	1994			4 432 (52%)	Walking,			_		JALI	
	1995			4 432 (52%)		\ /	/	Body was	0,		
	1996	į į		4351 (52%)	bending,		\	getting dre	-	)	
FOUR	1997		≥17 ans	4052 (53%)	graspin	lea	Feeding		<i>'</i>		
ECHP	1998	face-à-face	TR1994:79% TR1995-2001≥90%	3 935 (53%)		Hearing, seeing		Chann:		1	
	1999	į		3 783 (53%)		far & close)	Shopping, chore & admin.				
	2000	į		3 655 (54%)		iai & ciosej	[ \		vities,	)	
	2001	i '		3 676 (54%)	1	ĺ	<b> </b>	activ	vities,		
ESSM	2002-03	face-à-face	Tous TR=78% ménages	13 446 (46%)	6	3	-	6	6	1	
HSM	2008	face-à-face	Tous TR2008=78%	13 682 (52%)	5	3	8	7	6	1	
	2004			7 969 (45%)							
SILC	2005	face-à-face	≥ 16 ans	7 857 (44%)	Ī					1	
SILC	2006	lace-a-lace	TR=84-86% ménages (99% des individus)	8 302 (44%)	-	-	-	-	- '	'	
	2007		(	8 832 (44%)							
	2004		≥ 50 ans	3 038 (46%)				_	_		
SHARE	2006	face-à-face	TR2004=81% ménages (91% individus)	2 871 (49%)	8	-	-	5	7	1	
	1990			9 025 (37%)							
ESPS	1994		Ī	10 404 (38%)	1		Ţ	2 1	1		
	1997	Auto-	Tous	12 938 (40%)	_	-	_		'	-	
	2001	questionnaire	TR2006= 63% (78% retour volet santé)	11 874 (40%)							
	2006		,	5 623 (41%)	1	3		-			
	2008		†	5 621 (41%)	3	3	1	1	- '	1	



## **Estimates for France (2008)**

DISABILITY-FREE LI	FE EXPECTANCIES AT	AGE 65	, France circa 2	800
	Hommes, 65	ans	Femmes, 65 a	ns
EV en 2008	18,2 ans		22,5 ans	
Restrictions d'activit	té EVSI (%EV)	EVI	EVSI (%EV)	EVI
Toilette_ESPS ADL_SHARE	<b>75-85% (</b> D	FLE	severe)	
ADL_HSM	15,6 (85%)	2,7	17,9 (80%)	4,6
IADL_SHARE IADL_HSM	13,5 (75%) 14,7 (80%)	4,4 3,6	12,8 (57%) 14,3 (64%)	9,6 8,2
GALI_SILC GALI_SHARE	8,3 (46%) <b>40-50% (</b> [	9,9	9,2 (41%)	13,3
GALI_ESPS GALI_HSM	8,3 (45%)	10,0	9,1 (41%)	13,4
Limitations fonction	nelles EVSI (%EV)	EVI	EVSI (%EV)	EVI
LF_HSM	5,5 (30%)	12,8	5,5 (24%)	17,0
LFsens_ESPS LFsens_HSM	11,2 (61%) 8,8 (48%)	7,0 9,4	13,5 (60%) 12,5 (55%)	9,0 10,0
	0-40% (DFL			
LFphy_HSM	9,7 (3376)	0,0	1,3 (32/0)	10,2
LFcog_ESPS LFcog_HSM	14,9 (83%) 14,9 (82%)	3,1 3,4	17,8 (80%) 17,8 (79%)	4,6 4,7



### **Estimates for France (2008)**

	Hommes, 50 -6	Femmes, 50 -	65		
EV en 2008	14,2 ans		14,6 ans		
Restrictions d'activité	EVSI (%EV)	EVI	EVSI (%EV)	EVI	
Toilette_ESPS	13,4 (95%)	0,8	14,2 (97%)	0,5	
ADL_SHARE	13,0 (92%)	1,1	13,7 (94%)	0,9	
ADL_HSM	13,6 (96%)	0,6	14,2 (97%)	0,5	
IADL_SHARE	13,2 (93%)	1,0	13,2 (90%)	1,5	
IADL_HSM	13,5 (95%)	0,7	13,4 (92%)	1,2	
GALI_SILC	10,3 (73%)	3,9	10,5 (72%)	4,2	
GALI_SHARE	9,8 (69%)	4,4	10,5 (72%)	4,2	
GALI_ESPS	11,0 (77%)	3,2	11,0 (75%)	3,7	
GALI_HSM	10,2 (72%)	4,0	9,9 (68%)	4,7	
Limitations fonctionnelles	EVSI (%EV)	EVI	EVSI (%EV)	EVI	
LF_HSM	9,1 (64%)	5,1	8,4 (57%)	6,3	
LFsens_ESPS	11,4 (80%)	2,8	12,1 (83%)	2,5	
LFsens_HSM	10,6 (75%)	3,6	11,8 (81%)	2,8	
LFphy_SHARE	10,1 (71%)	4,1	8,9 (61%)	5,8	
LFphy_ESPS	12,4 (87%)	1,8	12,4 (84%)	2,3	
LFphy_HSM	11,8 (83%)	2,4	10,1 (69%)	4,6	
LFcog_ESPS	13,1 (92%)	1,1	13,1 (90%)	1,5	
LFcog_HSM	12,8 (90%)	1,4	13,4 (92%)	1,2	

Disability in mid-adulthood



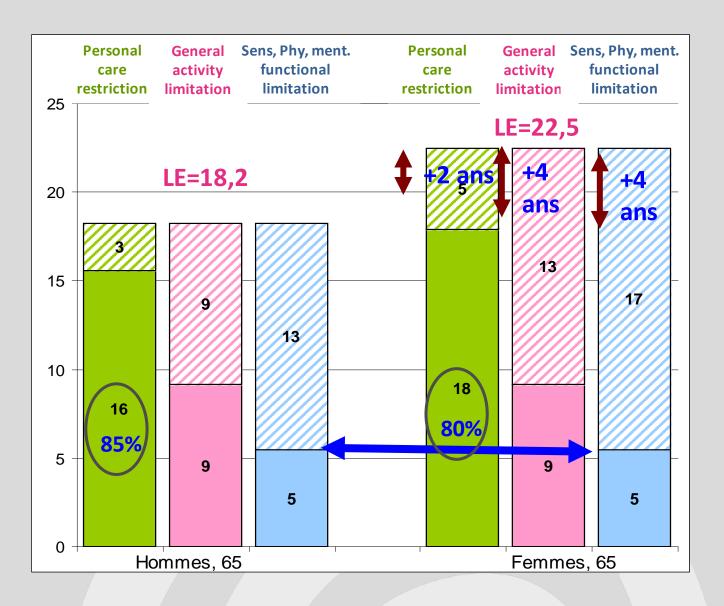
## focus 1

## The gender paradox Women live longer but in poorer health



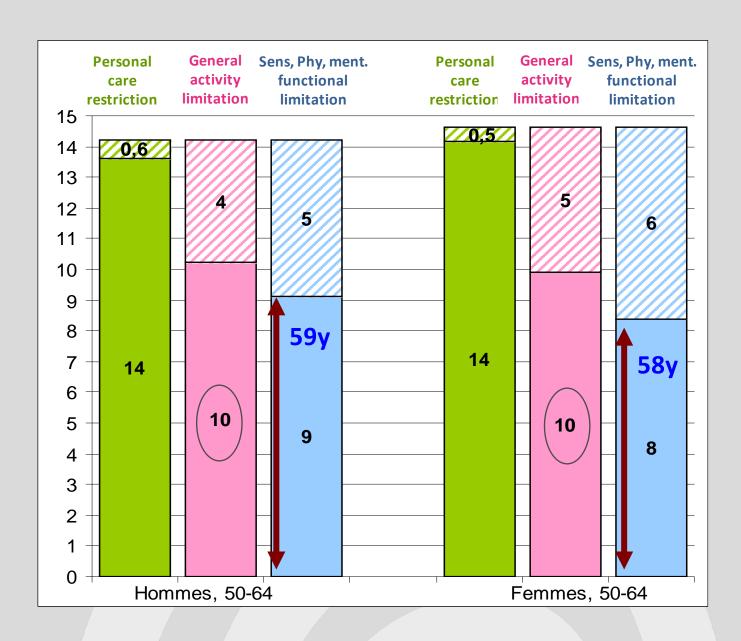
### Disability-free life expectancies at age 65 in 2008

(Enquête Handicap-Santé 2008)





### Partial disability-free life expectancies 50-65 in 2008





#### ✓ Different diseases

More disabling diseases for women: *cognitive and mental disorders, musculoskeletal*More lethal conditions for men: *cardiovascular, cancers, accidents...* 

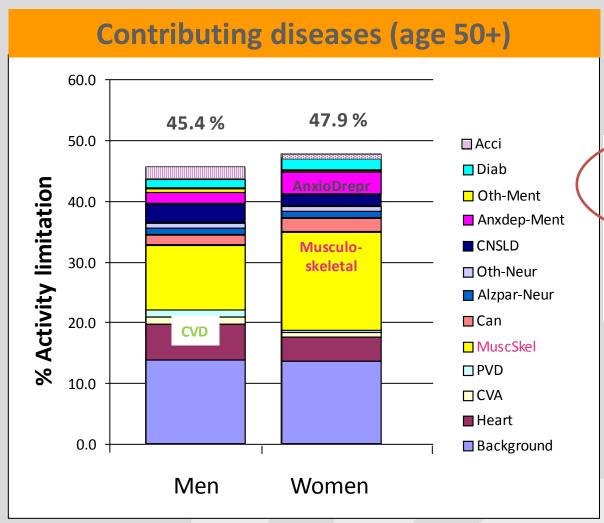
- Crimmins EM, Kim JK, Solé-Auró A. Gender differences in health: results from SHARE, ELSA and HRS. European journal of public health. 2011;21(1):81-91.
- Oksuzyan A, Juel K, Vaupel JW, Christensen K. Men: good health and high mortality. Sex differences in health and aging. Aging clinical and experimental research. 2008;20(2):91-102

#### A difference in the disabling impact of some diseases

• Nusselder, W. J. and C. W. Looman (2004). "Decomposition of differences in health expectancy by cause." Demography 41(2): 315-34.



✓ Which diseases contribute to disability (France 2008)?



Musculoskeletal 10 - 16%
Cardiovascular 5 - 9%:
Mental diseases 2.5 4%
Neurological 2.5%
Background (age) 13 %

Conditions that not only concern the elderly population but younger age groups

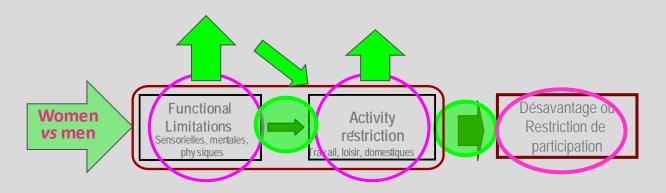
Nusselder, Wapperom, Looman, Meslé, Cambois, Work in Progress, 2014



### ✓ Which factors underlying these different diseases

- + Physiological differences as for musculoskeletal diseases (osteoporosis) for women
- + Damaging behaviours (tobacco, alcohol) for men (even if it is changing for both sexes)
- + Closer contact with care for women (even if it is changing for men)=> reporting issue
- + More detrimental exposures (in particular at work) for men (???)
- => growing interest for physical and emotional loads of women activities, which are not, or poorly, accounted for
  - Doyal L. What makes women sick: gender and political economy of health. London: MacMillan press, 1995.
  - Annandale E, Hunt K. Masculinity, feminity and sex: an exploration of their relative contribution to explaining gender differences in health. Sociology of Health and Illness. 1990;24-46.
  - Pinquart M, Sorensen S. Gender differences in caregiver stressors, social resources, and health: an updated metaanalysis. J Gerontol B Psychol Sci Soc Sci. 2006;61(1):P33-45.
  - Hunt K, Annandale E. Just the job? Is the relationship between health and domestic and paid work gender specific. Sociology of Health and Illness. 1993;Sect. 632-64.





- + Women report more functional limitations
- + while they have less risk of associated activity restrictions, before age 70
  - => better adaptation to the functional limitations?

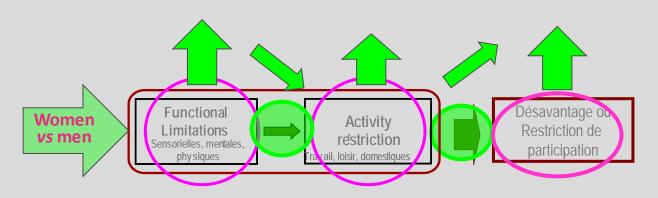
Table IV. Odds Ratio of the risk of experiencing a severe activity restriction according to age, sex, place of residence and functional status (exclusive categories of limitations).

Odds Ratio (severe restriction)	55-69		70 a	and over	55 and over	
None or other (vs physical only)	0.02	[0.01 - 0.04]	0.02	[0.01-0.03]	0.02	[0.01-0.03]
Sensory only	0.06	[0.02 - 0.20]	0.03	[0.01 - 0.11]	0.04	[0.02 - 0.10]
Orientation only	0.04	[0.01 - 0.28]	0.22	[0.10 - 0.47]	0.15	[0.07 - 0.29]
Sensory + orientation	0.50	[0.06-4.33]	0.12	[0.01 - 0.90]	0.18	[0.04 - 0.82]
Physical + sensory	1.54	[1.25 - 1.90]	1.55	[1.38 - 1.73]	1.54	[1.39 - 1.70]
Physical + orientation	2.62	[2.01 - 3.42]	4.41	[3.81 - 5.10]	3.90	[3.43 - 4.42]
Physical + sensory + orientation	4.12	[3.09-5.50]	8.10	[7.00 - 9.37]	7.25	[6.37 - 8.24]
One additional year of age	1.01	[0.99-1.03]	1.03	[1.03-1.04]	1.02	[1.02-1.03]
Institutions (vs households)		[2.96 - 4.23]	3.72	[3.36 - 4.12]	3.77	[3.45 - 4.11]
Women (vs men)	0,75	[0.64 - 0.89]	0.90	[0.81 - 1.00]	0.86	[0.79 - 0.94]

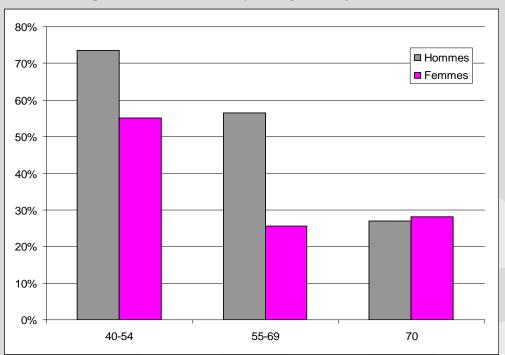
Sources: HID Survey 'institutions', 1998 and 'households' 1999.

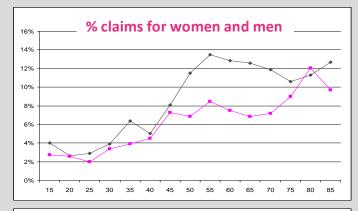
Cambois, Robine et al. Disability and Rehabilitation, 2005

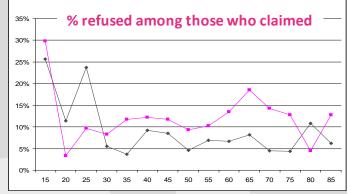




Administrative recognition of disability (work-related or not) among men and women reporting activity restrictions







Source: Enquête santé 2002-03



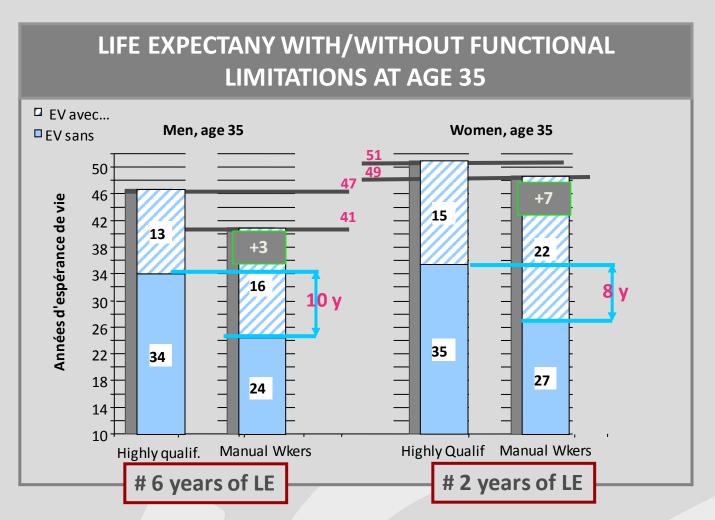
## focus 2

### Social inequalities:

"La double peine des ouvriers"



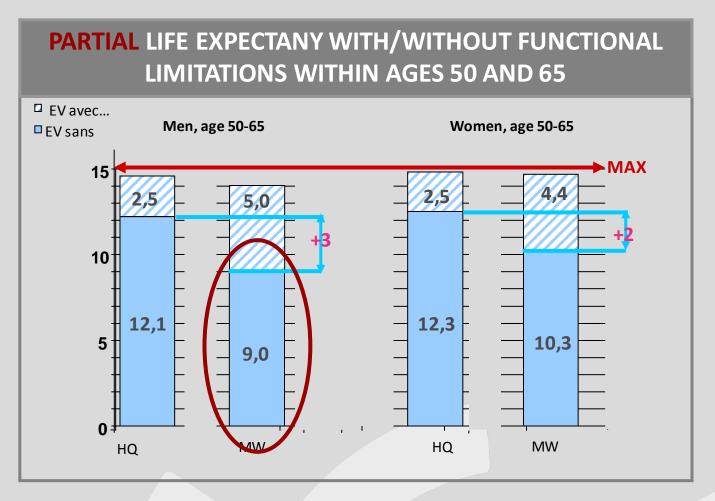
Inequalities in the number of years to be spent health in retirement



More disability for manual workers within a shorter life

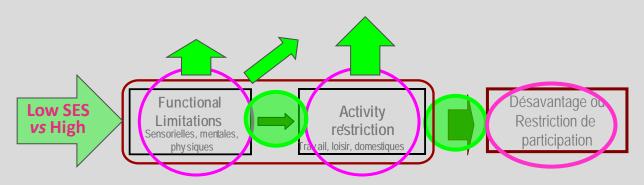


And unequal chances to reach the retirement age in good health (at work?)





And unequal chances to reach the retirement age in good health (at work?)



→ Work related exposures / work condition: cancers, cognitive disorders, musculoskeletal disorders, depression-anxiety...

→ Socioeconomic factors influencing health and the disablement process: income, health-related life-style, access to care, access to assistive devices, adaptability of the

home/workplace...

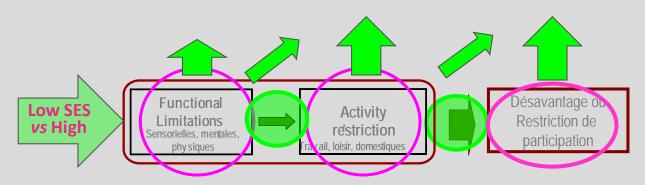
→ More functional limitations and higher associated risks of activity restrictions

OR OF ONSET OF SEVERE ACTIVITY RESTRICTIONS (after 2 years) Adjusted on functional limitations									
MEN WOMEN									
Déclaration de restrictions d'activité parmi ceux qui en étaient indemnes*									
Less than Bac	1								
Bac	0,7	[0,5-0,9]	0,8	[0,7-0,9]					
More than Bac	04	[0,2-0,7]	0,5	[0,3-0,8]					

→ More consequences on daily activities (and on the career)



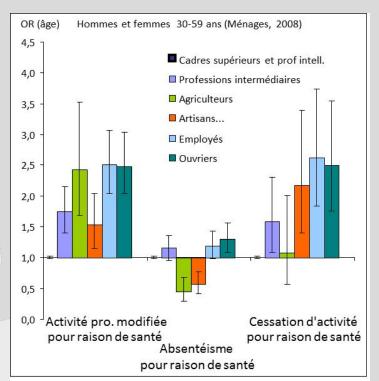
And unequal chances to reach the retirement age in good health (at work?)



Work modif, absenteeism, cessation due to health

Men and women aged 30-59 (source: HSM, 2008)

OR (adjusting on age, education)
+ functional limitations





## focus 3

### **Trends in DFLE in France**

Compression/equilibrium/expansion
The three theories across three decades



### Trends over the 1980's

	WOMEN	MEN
At birth:		
LIFE EXPECTANCY		+ 2,5 years
DFLE	+ 2,6 years	+ 3,0 years
<b>DFLE Severe</b>	+ 2,5 years	+ 2,8 years
<b>At age 65:</b>		
LIFE EXPECTANCY	+ 1,8 years	+ 1,6 years
DFLE	+ 2,3 years	+ <b>1,3</b> years
<b>DFLE Severe</b>	+ 1,6 years	+ 1,7 years

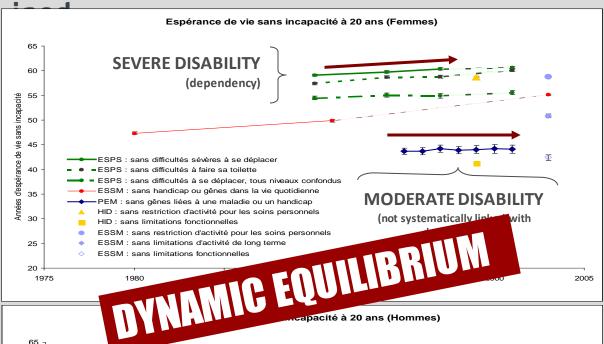
Increase in the number of years to be lived without disability (even moderate for women)

### **COMPRESSION OF THE DISABILITY YEARS**



#### **Trends over 1980-2003**

Multi-sources (ESPS, ECHP, HID, ESSM)

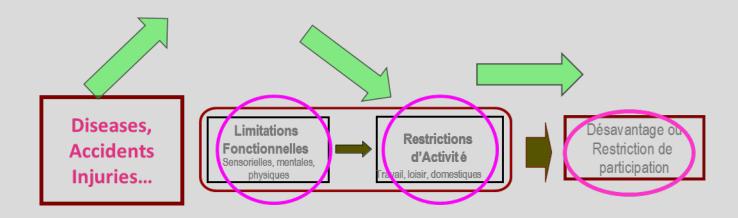


65 60 Années d'espérance de vie sans incapacité 8 9 9 9 9 9 9 9 SPS : sans difficultés sévères à se déplace ESPS : sans difficultés à faire sa toilette ESPS : sans difficultés à se déplacer, tous niveaux confondus ESSM : sans handicap ou gênes dans la vie quotidienne : sans gênes liées à une maladie ou un handicap sans restriction d'activité pour les soins personnels HID: sans limitations fonctionnelles ESSM : sans restriction d'activité pour les soins personnels 25 ESSM : sans limitations d'activité de long terme ESSM : sans handicap ou gênes dans la vie quotidienne 20 1995 2000 2005 1975 1980 1990 Années d'enquête

- No gain in DFLE for the large definitions of disability including functional limitations
- Increasing DFLE for severe definitions of disability
- The years of LE gained are lived with moderate disability (FL) but not severe restrictions
- SIMILAR CONCLUSIONS
  WORLDWIDE (Robine et al. 2003)



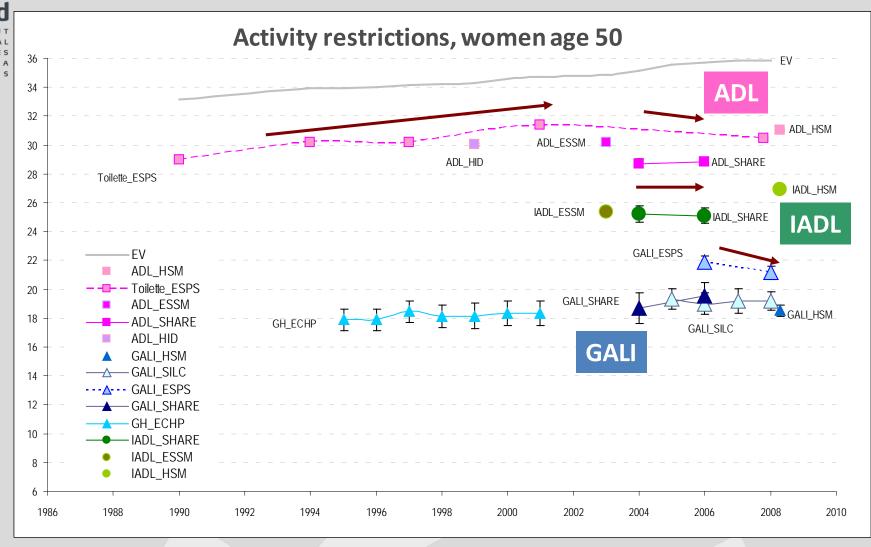
#### **Trends over 1980-2003**



- Increasing prevalence of chonic diseases
  - Improved screening of diseases and more years to be lived at ages exposed to such diseases
- But better management of their consequences
  - more years with functional disorders but not systematically activity restrictions (decreasing association between disease and disability – Robine, Mormiche & Sermet, Jour Aging and health, 1998)



### Trends over the 2000-2008 period



The pattern seemed reinforced looking at partial DFLE (50-65)



### **Trends over 2000-2008**

- Decomposition (with the three available time series)
  - →How many years with disability gained/loss due to change in mortality and in disability prevalence
  - $\Delta LE = \Delta DLE + \Delta DFLE \rightarrow \Delta DLE = \Delta due$  to mortality change +  $\Delta due$  to disability change
    - $\rightarrow$   $\triangle$ DFLE=  $\triangle$ due to mortality change +  $\triangle$ due to disability change
- Linear regresssion of all the estimates by disability types
  - → Congruence of the observed trends by type of disability, sex, age group



## Results: Decomposition of DFLE and DLE, at age 65

NATIONAL		MEN	
Decomposition of ∆LE at age 65	ΔLE <sub>65</sub> =	∆LEwD <sub>65</sub> [Mor +/- Dis]	$\Delta$ DFLE $_{65}$ [Mor +/- Dis]
15° ECDC (300C 3000)	0.3 =	0.3	0.0
LFc_ <b>ESPS (2006-2008)</b>	5.5	[0.1+0.2]	[0.2-0.2]
15° ECDC (300C 3000)	0.3 =	-0.3	0.6
LFs_ <b>ESPS (2006-2008)</b>	5.5	[0.1-0.4]	[0.2+0.4]
I Fr. FCDC (200C 2000)	0.3 =	0.2	0.1
LFp_ <b>ESPS</b> (2006-2008)	0.5 -	[0.2+0.0]	[0.1-0.0]
CALL FCDC (200C 2000)	0.3 =	1.3	-1.0
GALI_ESPS (2006-2008)	0.5 -	[0.2+1.1]	[0.1 - 1.1]
CALL CHARE (2004 OC)	0.5 =	0.2	0.3
GALI_SHARE (2004-06)	0.5 -	[0.3 - 0.1]	[0.2 + 0.1]
CALL CILC (2005 2000)	0.4 =	0.1	0.3
GALI_SILC (2005-2008)	0.4 -	[0.3 - 0.2]	[0.1 + 0.2]
IADL CHARE (2004.0C)	0.5 =	-0.2	0.7
IADL_SHARE (2004-06)	0.5 -	[0.2-0.4]	[0.3 + 0.4]
ADI CHARE (2004-2006)	05 -	-1.0	1.5
ADL_SHARE (2004-2006)	0.5 =	[0.2 - 1.2]	[0.3 + 1.2]



## Results: Decomposition of DFLE and DLE, at age 65

NATIONAL		MEN			WOMEN	
Decomposition of ∆LE at age 65	ΔLE <sub>65</sub> =	ΔLEwD <sub>65</sub> [Mor +/- Dis]	ΔDFLE <sub>65</sub> [Mor +/- Dis]	ΔLE <sub>65</sub> =	ΔLEwD <sub>50-65</sub> [Mor +/- Dis]	∆DFLE <sub>50-65</sub> [Mor +/- Dis]
LFc_ <b>ESPS (2006-2008)</b>	0.3 =	0.3 [0.1+0.2]	[0.2-0.2]	0.2 =	-1.6	1.8 [0.2+1.6]
LFs_ <b>ESPS (2006-2008)</b>	0.3 =	-0.3	IIIM AT C	LOEK	[0.1-0.6]	0.7 [0.1+0.6]
LFp_ESPS (2006 20	MIC E	[[ULD1]	[0.1-0.0]	0.2 =	-0.5 [0.1-0.6]	0.7 [0.1+0.6]
GALI_ESPS (2008)	0.3 =	1.3 [0.2+1.1]	-1.0 \(\frac{1}{2}\) \([0.1 - 1.1]\)	0.2 =	-0.8 [0.1-0.9]	1.0 [0.1+0.9]
GALI_SHARE (2004-06)	0.5 =	0.2 [0.3 - 0.1]	[0.2 + 0.1]	0.5 =	-1.6 [0.3 - 1.9]	[0.2+1.9]
GALI_SILC (2005-2008)	0.4 =	0.1 [0.3 - 0.2]	0.3 [0.1+0.2]	0.3 =	-1.6 \(\frac{1}{2}\)	1.9 [0.1+1.8]
IADL_SHARE (2004-06)	0.5 =	-0.2 [0.2-0.4]	0.7 [0.3 + 0.4]	0.5 =	-0.5 [0.3 - 0.8]	1.0 [0.2+0.8]
ADL_SHARE (2004-2006)	0.5 =	-1.0 [0.2 - 1.2]	1.5 [0.3 + 1.2]	0.5 =	-0.3 [0.2 - 0.5]	0.8 [0.3+0.5]

<sup>→</sup> At 65, women gained a little more DFLE than men: decreasing the gender gap



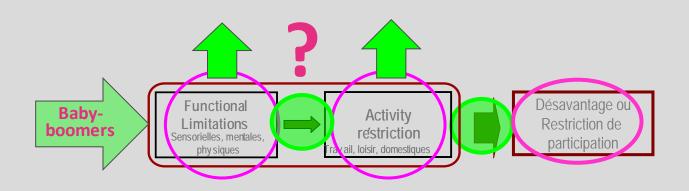
### **Results: Decomposition of Partial DFLE and DLE50-65**

NATIONAL	HOMMES				FEMMES	
Décomposition ∆EV 50-65	ΔEV <sub>50-65</sub> =	ΔΕVI <sub>50-65</sub> [Mor +/- INC]	$\Delta$ EVSI $_{50-65}$ [Mor +/- INC]	ΔEV <sub>50-65</sub> =	ΔEVI <sub>50-65</sub> [Mor +/- INC]	ΔEVSI <sub>50-65</sub> [Mor +/- INC]
LFc_ <b>ESPS (2006-2008)</b>	0.02 =	0.01 [0.00+0.01]	[0.02-0.01]	0.00	IRS	-0.37 [0.00-0.37]
LFs_ <b>ESPS</b> (2006-2008)	0.02 =	0.29 OE THE	[0.02-0.01] ISABIL	u Il i i i i		-0.72 -0.72 [C.00-0.72]
LFp_ESPS EXP	NSION	OF THE MID-AD	ULTHOU	.50 =	[0.00+2 32]	-2.82 [0 00-2.82]
GALI_ESPS		[0.01+0.1]	-0.39 (c.02 - 0.41)	0.00 =	0.79 [0.00+0 79]	[0. 0 - 0.79]
GALI_SHARE (2004-06)	0.02 =	0.76 [0.01 + 0.75]	-0.74 \( \) [0 \( \) 02 - 0.75]	0.01 =	0.26 [0.00+0 26]	-0.25 (0.01 - 0.26)
GALI_SILC (2005-2008)	0.03 =	0.39 [0.01+0.39]	-0.37 \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \) \( \)	0.00 =	1.13 [0.00+13]	-1.13 \( \) [0 00 - 1.13]
IADL_SHARE (2004-06)	0.02 =	0.13	-0.11 (0.02 - 0.13)	0.01 =	0.87 [0.00+0.87]	-0.86 -0.87]
ADL_SHARE (2004-2006)	0.02 =	-0.01 [0.00- 0.01]	0.03 [0.02+0.01]	0.01 =	0.55 [0.00+0.55]	-0.54 [0.01 - 0.55]

**⇒** Similar conclusions using regression **⇒** And in Sweden and the USA



### **Trends over 2000-2008**



#### More systematic <u>self-report</u> of disorders?

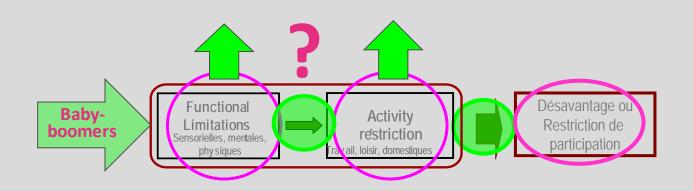
- → Increasing information about prevention and about dependency
- → The 50-65 benefitted better care systems, screening and treatment
- → A larger use of the care system in mid-adulthood could decrease severe disability in subsequent ages

#### Demographic and medical dynamics?

- Increasing surviving to 50-65 age group of people with diseases Overweight (Seeman et al., 2010, Reynolds et al., 2010), CDV
- Increasing surviving of people with disability
  ... even with ADL in the elderly americans (Crimmins et al, 2009)



### **Trends over 2000-2008**



#### Social changes and risk factors

- → Difficulties in the end of the career for the least qualified? *Increasing work-related disorders in the USA: Pain, Musculoskeletal disorders (Weir, 2007)*
- → Women BB-B more at risk: work+, drink+, smoke+! ... increasing risks of disability... but also of mortality?
- → Changing family situations: divorce, caring for parents, "boomerang" children. BB-B are pionneers for these new patterns?



### Discussion



#### Health expectancies and the disablement process

- → Differentials across population groups in HE & Changes over time
- → Patterns specific to each dimension of heath/disability
- → Variations in the probability of getting *in* and *through* the disablement process
  - The disablement process go from the medical to the social situations
  - With social determinants boosting/buffering the transition risks
  - Room for interventions in terms of protection from risks / management



Disantangle social-medical-demographic dynamics Comparisons across groups and countries (Europe) Explore pathways in the disablement process

### Séminaire PSED – 3 février 2015

# THANK YOU FOR mu YOUR ATTENTION

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Health expectancies: Why and how?

**Emmanuelle Cambois**