UNIVERSITE PARIS DAUPHINE
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AGIR Project - WP1

Bio-demographic aspects of ageing

LEGOS Working Paper

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Contents

1 French population

1.1 Data required: French population from 1950 up to 2050

The longest possible time series of national population by gender and age both for historical data (back since 1900 or 1950, according to the data needed) and for projections up to 2050, year by year when possible. Assumptions concerning fertility, mortality and migration should be clearly stated when providing the projections data.
A simple spreadsheet should be the basis for this data :

Population by age and gender (31 December)					
Country:					
year	age	Men	women	total	Observations
1950	0				
1950	1				
1950	2				
1950	3				
1950	....				
1950	....				
1950	....				
1950	94				
1950	95				
1950	96				
1950	97				
1950	98				
1950	99				
1950	100 and +				Or up to the highest possible age and +
More years (year by year if possible) up to 2000					
When possible add years (even if scattered) before 1950 down to 1900.					
Do your best to get population by point age rather than by age groups or cohorts					
Projections up to 2050, year by year when possible, in a separate sheet.					
May be that official population figures are only available up to somewhere in the 90s.					
In that case, please continue with population projections					

1.2 Data available for French Population: 1950-1998

1.2.1 Definitions

Number of inhabitants in territory and population repartition by age are well known in France. Realised forecasting are reliable. INSEE (National Institute of Statistical and Economical Studies) provide population for **metropolitan France** by age and gender, from 0 up to 100 years, 1st January, from 1899 up to 1998.
Data available each year in the Bilan démographique based on « Statistiques de l'Etat civil et les enquêtes Villes » (Insee 2002).

Legos Excel files: in *PopulationWP1.xls* have been collected Population for metropolitan France by age and gender, from 0 up to 100 years, 1st January, from 1950 up to 1998 (tables 1a, 1b and 1c).
Source is Vallin and Meslé (2001): French mortality tables for the 19th and the 20th centuries, INED.

1.2.2 Extracts of Data

Table 1c - Populations by age, from 0 up to 100 ans, 1st january, from 1950 up to 1998, men and women

Sources : INSEE

Year	age 0	1	2	...	95 et +	90 et +
1950	836295	819438	813290		4237	37307
1951	830471	823701	818596		5077	40687
1952	794893	817156	823086		5492	41742
1953	795463	780862	815316		6356	45506
1954	778016	785590	777491		5021	46446
1955	787606	769594	785053		5471	48736
1956	786158	781890	771244		6256	50598
1957	789784	783242	785544		6633	51784
1958	801192	789283	788081		7391	52389
1959	795980	798417	792237		7906	54304
1960	812518	793492	800703		8281	57765
1961	802750	810678	796130		8454	61096
1962	823417	800046	813445		9190	63510
...	...	...	...		...	...
1975	781166	833251	855221		19641	129609
1976	721204	769858	834362		18659	129864
1977	698167	716456	777306		20026	133500
1978	722557	693192	723519		21653	139387
1979	715195	716932	699652		22913	145895
1980	735846	709823	723683		24347	153014
1981	778436	730441	716607		25494	156036
1982	780938	772858	737254		26150	159584
1983	781055	776551	780407		27922	165903
1984	732582	775593	783134		28931	173927
1985	744328	726484	780824		30653	183487
1986	753321	738062	731240		31281	190385
1987	763482	747663	742869		32653	201625
1988	753352	758227	753500		34856	214844
1989	756819	748604	764408		38680	228367
1990	751370	752283	755238		41488	241922
1991	749986	746979	757314		43595	256291
1992	747116	745395	752079		47354	277494
1993	731763	741838	749762		51115	298967
1994	699587	726504	746032		54216	316059
1995	699438	694727	730861		58299	335759
1996	718767	694879	699210		62993	353718
1997	723060	714146	699232		69338	370149
1998	716519	718749	718813		75533	385451

1.3 Population Projections: 2000-2050

1.3.1 Definitions

Legos Excel files: in *PopulationWP1.xls* have been collected Population Projections for metropolitan France by age groups and gender (Table 2) up to 2050. Source in INSEE, Insee Première n°762.

Projections are based on metropolitan population in January 2000 and use data on mortality, fecundity and migration from 1970 up to 1998. Projections retrained here inside are based on central scenario.

Central scenario is based on trends continuity for each component of population evolution.
Since 1975, economic fertility index is the medium level observed: **1,8 children per women**.
Since 1970, **fall of mortality ratio** (death probability) by gender and age carries on observed rythm. In 2050, medium life or life expectancy at birth is 84,3 years for men, and 91 years for women. Application of mortality ratios implies life end near 115 years during the total projection period.
Migratory balance is the most difficult variable to determinate. It is equal to **+ 50 000 persons**, ie medium level observed during the last years ; it is equally distributed by gender and age structure corresponds to observed average during 1990-1999 period.

1.3.2 Data: 2000-2050

Population projections for metropolitan France - central scenario
Population by gender et age group (by thousands people)

YEARS	MEN				WOMEN			
	Before 20 years	20-59 years	60-64 years	65 and more	Before 20 years	20-59 years	60-64 years	65 and more
2000	7 680	15 738	1 298	3 812	7 333	15 875	1 407	5 601
2005	7 575	16 205	1 295	4 069	7 226	16 393	1 356	5 864
2010	7 437	16 112	1 823	4 291	7 087	16 321	1 919	6 071
2015	7 346	15 891	1 892	4 968	7 002	16 051	2 043	6 782
2020	7 226	15 711	1 881	5 647	6 894	15 772	2 062	7 541
2025	7 077	15 497	1 935	6 260	6 751	15 466	2 110	8 281
2030	6 971	15 253	1 925	6 862	6 649	15 148	2 073	9 046
2035	6 879	14 975	1 950	7 361	6 561	14 818	2 064	9 718
2040	6 786	14 886	1 754	7 776	6 471	14 709	1 829	10 257
2045	6 692	14 669	1 866	7 919	6 382	14 477	1 930	10 402
2050	6 593	14 459	1 856	8 132	6 287	14 252	1 911	10 542

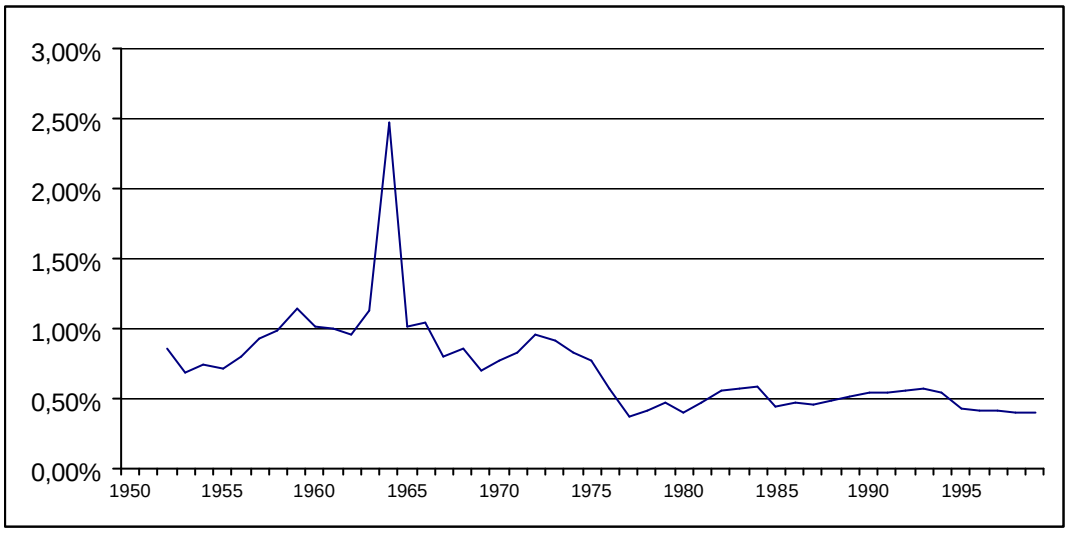
Source : demographic projections, *Insee*

1.4 Some statistics on French population: 1950-2050

1.4.1 General evolution from 1950

From 1950 up to 2000, population of metropolitan France increased of 17 millions (41,6 millions to 58,7 millions people). From 1950 up to 1975, this growth were quickly (+1% in annual average) cause of baby-boom and important migration. From 1975 up to 1990, it slew down (+ 0,5%).

Figure 1 : Growth ratio of total France population 1951-2000



Share of 0-19 years group reduced from 30,1% in 1950 to 25,6% in 2000.
Share of 20-59 years group stagnated.
Share of 60 years and more increased from 16,2% in 1950 (6,7 millions) to 20,6% in 2000 (12 millions).
Share of 65 years and more increased from 11,4% in 1950 to 16% in 2000.

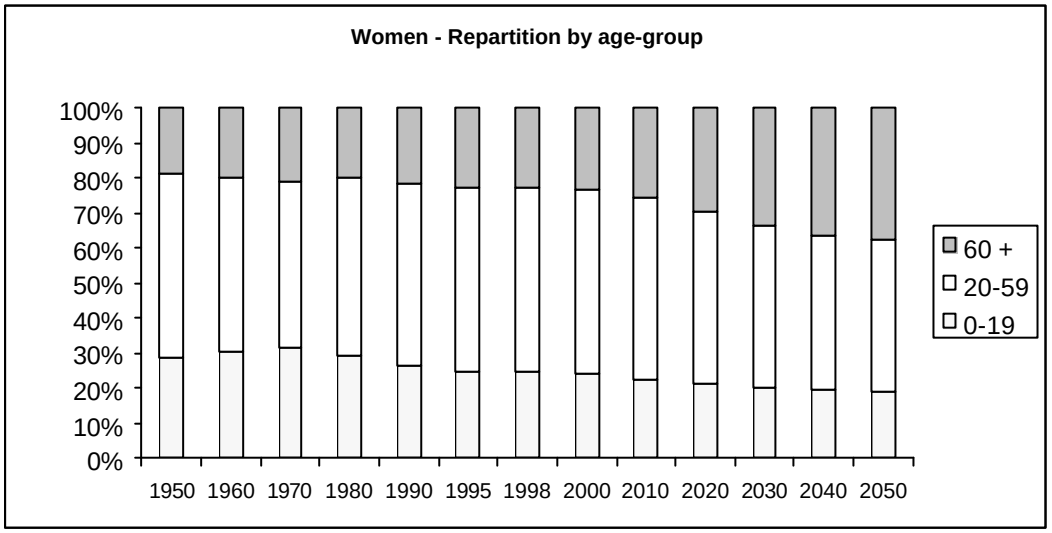
1.4.2 Projections : 2000-2050

In assumptions of central scenario, total population of metropolitan France will increase till 2040. Population would increase from 58,7 millions in 2000 up to 62,7 millions in 2020, and from 64,5 millions in 2040 and 64,0 millions in 2050.

Share of 0-19 years group would reduce from 25,6% in 2000 up to 20,1% in 2050.
Share of 20-59 years group would reduce from 53,8% in 2000 up to 44,8% in 2050.
Share of 60 years and more group would increase from 20,6% in 2000 up to 35,1% in 2050.
Share of 65 years and more would increase from 16% in 2000 up to 29,2% in 2050.

Whatever considered scenario, metropolitan population goes on ageing. In 2050, in accordance with different variants of fertility, the share of the elderly (more 60 years) into total population were contained between 32,1% and 38,7%.

Figure 2 : Repartition of population projection, by age abd sex, 1950-2050



Population repartition by gender and age-groups 1950-2050										
	men					women				
	0-19	20-59	60-74	75 and +	***60 and +***	0-19	20-59	60-74	75 and +	***60 and +***
1950	31,8%	54,5%	10,7%	2,9%	***13,6%***	28,6%	52,8%	14,1%	4,4%	***18,5%***
1960	33,9%	52,6%	10,5%	3,1%	***13,5%***	30,7%	49,6%	14,2%	5,5%	***19,7%***
1970	34,6%	50,4%	12,0%	3,0%	***15,0%***	31,8%	47,3%	14,7%	6,2%	***20,9%***
1980	32,0%	53,9%	10,2%	3,9%	***14,1%***	29,2%	50,9%	12,4%	7,5%	***19,9%***
1990	29,2%	54,7%	11,4%	4,8%	***16,2%***	26,5%	51,8%	13,1%	8,7%	***21,8%***
1995	27,5%	55,3%	13,0%	4,3%	***17,2%***	24,9%	52,4%	14,8%	7,8%	***22,7%***
1998	27,1%	55,3%	12,7%	4,9%	***17,6%***	24,6%	52,5%	14,4%	8,6%	***22,9%***
2000	26,9%	55,2%			***17,9%***	24,3%	52,5%			***23,2%***
2010	25,1%	54,3%			***20,6%***	22,6%	52,0%			***25,4%***
2020	23,7%	51,6%			***24,7%***	21,4%	48,9%			***29,8%***
2030	22,5%	49,2%			***28,3%***	20,2%	46,0%			***33,8%***
2040	21,7%	47,7%			***30,5%***	19,5%	44,2%			***36,3%***
2050	21,2%	46,6%			***32,2%***	19,1%	43,2%			***37,7%***

1.5 Dependent elderly counting : survey and projections

Evaluation of the number of the dependent elderly is more complicated. In this domain, data are ponctual or partial. Dependence is not defined as the observation of a pathology (see definitions of used evaluation methods, ADL, IADL).

(a) OECD French projections of disabled older people

OECD projections of disabled older people (OECD 1998) are based on "severe disability" which includes those 65 or more individuals with at least one Activity Day of Life (ADL).
In 1994, 1 290 000 persons are concerned. According hypothesis retained for projections in 2000 there are 1 274 000 (dynamic projection) or 1 397 000 (constant trends) persons are concerned.
Growth rates for 2020/2000 would be range between 25 % in dynamic projections (ie 1 590 000) and 43 % in constant trends projections (ie 1 992 000)

(b) HDD French projections of disabled older people

HDD survey (Handicaps-Disabilities-Dependency, see annex) gives a better knowledge of this population living at home or in institution (Colin et Coutton 2000, Bontout, Colin et Kerjosse 2002, and our results).

Number of the more 60 years dependant elderly is estimated with HDD survey with two mains evaluation methods of dependence in France : doctor Colvez and AGGIR (Colin et Coutton 2000). The both methods partially overlap ; estimations depend on methodological choices.

Number of more 60 years dependent elderly according to Colvez method (at home and in institution) in 1998-1999	
Level 1 (confined to bed or to armchair)	225 000
Level 2 (help need for washing or for dressing)	403 000
Level 3 (help need for going out)	789 000
Total dependence	**1 417 000**
Source : Colin et Coutton 2000, table 01, HDD surveys 1998-1999	

Number of more 60 years dependent elderly according to AGGIR Lecture (at home and in institution) in 1998-1999	
Equivalent Gir 1 (the most dependent)	69 000
Equivalent Gir 2	262 000
Equivalent Gir 3	201 000
Equivalent Gir 4 (the less dependent but classified in dependent)	264 000
Total dependence	**796 000**
Source : Colin et Coutton 2000, table 03, HDD surveys 1998-1999	

In HDD population, there are **1 405 000** persons of 60 or more who are "severely" disabled (at least one ADL) in 1998-1999.

With the results of HDD survey, projections for GIR 1 to 4 people were realised (Bontout, Colin et Kerjosse 2002). In accordance with scenario considered (optimistic, central or pessimistic), the ageing of French population should bring about underlying increasing of the more 60 years dependant elderly de la population.
Growth rates for 2020/2000 would be range between 13 % in central projections (ie 904 000) and 31 % in pessimistic projections (ie 1 048 000).

From 2000 up to 2040, the increasing should be about 35% to 80% with considered scenario.

2 Mortality

2.1 Data required: Mortality Tables and Life Expectancies (1950-2050)

Concerning mortality, death tables and survivors statistics are in principle both needed, since the latest possible year by age. Several longevity indicators can be derived from these data.

Actual deaths by age and gender

Country:				
Year	**age**	**men**	**women**	**total**
1950	0			
1950	1			
1950	2			
1950	3			
1950	....			
1950	....			
1950	....			
1950	95			
1950	96			
1950	97			
1950	98			
1950	99			
1950	100			

When possible add years (even if scattered) before 1950 down to 1900.
Do your best to get # of deaths by point age rather than by age groups or cohorts
More years (year by year if possible) up to 2000

Survivors by age and gender (100.000 cohorts)

Country:				
year	**Age**	**men**	**women**	**both**
1950	0	100 000	100 000	100 000
1950	1			
1950	2			
1950	3			
1950	....			
1950	....			
1950	....			
1950	96			
1950	97			
1950	98			
1950	99			
1950	100			

When possible add years (even if scattered) before 1950 down to 1900.
Do your best to get survivors by point age rather than by age groups or cohorts
More years (year by year if possible) up to 2000

Life expectancy by age and gender

Country:					
year	age	men	women	both	Observations
1950	0				
1950	5				
1950	10				
1950	15				
1950	20				
1950	25				
1950	30				
1950	35				
1950	40				
1950	45				
1950	50				
1950	55				
1950	60				
1950	65				
1950	70				
1950	75				
1950	80				
1950	85				
1950	90				
1950	95				
1950	100				Or up to the highest possible age

When possible add years (even if scattered) before 1950 down to 1900.

More years (year by year if possible) up to 2000 — Or up to the nearest possible year

Projections up to 2050 — Even if at every X years

2.2 Data available

2.2.1 Definitions

INSEE provides a mortality table for each year from 1950 up to 2050. In each table, survivors, deaths and life expectancy by point age and gender are available.

In *SurvDeath5097.xls* have been collected survivors, deaths and life expectancies by age and gender (100.000 cohorts) from 1950 up to 1997 (tables 3a, 3b and 3c). There is a mortality table for each year from 1950 up to 1997.

In *SurvDeath982050.xls* have been collected Projections for survivors, deaths and life expectancies by age and gender (100.000 cohorts) from 1998 up to 2050 (tables 4a, 4b and 4c). There is a mortality table for each year from 1998 up to 2050.

Sources: INSEE, INED (National Institute of Demographic Studies): Vallin et Meslé, french mortality tables and forecasts, statistics data, n°4-2001.

Tables are constructed with q_x ratio by age and with a birth index $S_0=100\,000$ point of beginning of series of survivors S_x with age x. With successive iterations, we calculate, for each series, the series S_x of survivors for each birthday and the series $d_{(x,x+1)}$ of deceases between two successive birthdays. Thus, we obtain :
$d_{(0,1)} = S_0 * q_0$ *et* $S_1 = S_0 - d_{(0,1)}$, and by iterations : $d_{(x,x+1)} = S_x * q_x$ *et* $S_{x+1} = S_x - d_{(x,x+1)}$,
until final age ϖ : $d_{(\varpi-1,\varpi)} = S_{\varpi-1} * q_{\varpi-1}$ *et* $S_{\varpi-1} = S_{\varpi-1} - d_{(\varpi-1,\varpi)}$.

Life expectancy e_x at age x is obtained with the sum of survivors after age $x+1$:

$$e_x = 0{,}5 + \frac{\sum_{y=x+1}^{w} S_y}{S_x}$$

After 105 years, necessary data to calculate mortality ratio are very uncertain : then tables stop at this age.

Extrapolations up to 2050 :

Several choices of possible assumptions for a mortality forecasting because of specialist discords.
Considered assumptions is the continuity of mortality falling with a relatively conservative position about human longevity limits. Mortality ratios were always extrapolated. However, each annual ratio at age x were extrapolated with its last real value and with past trends of five-years ratio at age $x-2$. not to give more importance to unknown quantities (Meslé et Vallin, 2001, p. 35-36).

2.2.2 Extract of Data: a survival table

Tables 4a - Survivors and deaths by age and gender (100.000 cohort) - Life expectancy by age and gender
Men and women - PROJECTIONS 1998-2050

x	age
Sx	survivors at age x
D(x,x+a)	deaths between age x and age x+1
aQx	rate of mortality at age x
Ex	life expectancy at age x
P(x,x+a)	stationary population between age x and age x+1

1998

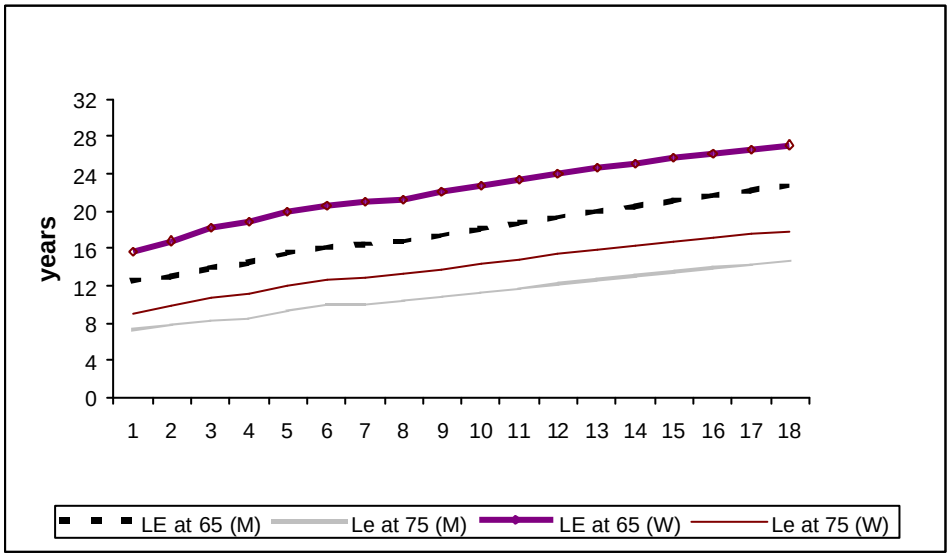
x	Sx	D(x,x+a)	aQx	Ex	P(x,x+a)
0	100000	454	0.00454	78.70	99773
1	99546	43	0.00043	78.06	99524
2	99503	25	0.00025	77.09	99491
3	99478	22	0.00022	76.11	99467
4	99456	17	0.00017	75.13	99448
5	99440	14	0.00014	74.14	99433
6	99426	13	0.00013	73.15	99419
7	99413	13	0.00013	72.16	99406
8	99400	12	0.00012	71.17	99394
…	…	…	…	…	…
84	44933	3583	0.07975	6.60	43141
85	41350	3749	0.09068	6.13	39475
86	37600	3799	0.10103	5.69	35701
87	33801	3823	0.11310	5.28	31890
88	29978	3819	0.12740	4.89	28069
89	26159	3772	0.14419	4.53	24273
90	22387	3509	0.15675	4.20	20633
91	18878	3272	0.17332	3.89	17242
92	15606	2955	0.18936	3.60	14129
93	12651	2589	0.20466	3.33	11356
94	10062	2274	0.22601	3.06	8925
95	7788	2109	0.27083	2.80	6733
96	5679	1620	0.28529	2.66	4869
97	4059	1206	0.29711	2.52	3456
98	2853	900	0.31549	2.37	2403
99	1953	648	0.33162	2.23	1629
100	1305	461	0.35316	2.09	1075
101	844	323	0.38218	1.96	683
102	522	213	0.40890	1.87	415
103	308	131	0.42598	1.82	243
104	177	73	0.41085	1.80	141
105	104			1.70	177

2.2.3 Life expectancies

Table 5 : Life expectancies for different ages

	Men			Women		
Life expectancy…	at 0	at 65	at 75	at 0	at 65	at 75
1950	63,45	-	6,97	69,21	-	8,36
1960	67,01	12,5	7,26	73,59	15,6	8,90
1970	68,38	13	7,78	75,84	16,8	9,80
1980	70,19	13,9	8,27	78,42	18,2	10,70
1985	71,26	14,4	8,51	79,44	18,8	11,08
1990	72,76	15,5	9,38	80,96	19,9	12,04
1995	73,94	16,1	9,87	81,91	20,6	12,68
1997	74,61	16,47	10,02	82,28	20,97	12,81
2000	75,41	16,74	10,31	82,92	21,27	13,16
2005	76,69	17,40	10,79	83,93	21,98	13,74
2010	77,89	18,05	11,26	84,89	22,67	14,29
2015	79,04	18,69	11,73	85,79	23,32	14,82
2020	80,12	19,31	12,18	86,64	23,95	15,32
2025	81,15	19,92	12,62	87,44	24,55	15 ,8
2030	82,11	20,52	13,06	88,2	25,11	16,26
2035	83,03	21,09	13,47	88,9	25,65	16,7
2040	83,89	21,65	13,88	89,57	26,16	17,12
2045	84,71	22,19	14,28	90,19	26,64	17,51
2050	85,48	22,71	14,66	90,77	27,09	17,88

Figure 3 : Life expectancies at 65 and 75 by sex



Important gap of life expectancy between men and women is a french specificity and it's explained by a high level of male surmortality (Report of health in France 1994, HCSP, annexs, p. 153).

In 60-74 age-group, since the beginning of 80's, the main cause of death is now explained by tumours (the second cause is cardio vascular diseases (Dupâquier, ESVI (1995), p. 82-83, editions PUF)). In contrary to the 75 years and more group, cardio vascular diseases are the most important cause, followed by tumour and cerebro-vascular affections.
Tumour mortality trends to reduce for women, but it increases for men, that is the reason of the mortality difference between gender after 60 years.

Is the similarity of gender way of life (drinks, tobacco) determinant in life expectancy and the gap evolution ? Addiction to smoking (Aliaga, Insee Première, juin 2002) : if tobacco consumption is reducing for men, it increases for women : the number of women regular smoker can't stop increasing (TEF 1999-2000, p. 200) : cf. causes of decease.

2.2.4 Rectangularisation of survival curves, compression of mortality

Fall of mortality rates at earlier ages and gains in life expectancy at most advanced ages imply rectangularization in survival curves

Sources :
Vallin et Meslé, Dupâquier (ESVI 1995) p. 88.

2.3 Data available for Deaths

2.3.1 Definitions

In *Deathswp1.xls* have been collected number of deaths by age and gender from 1950 up to 1997 (tables 5a, 5b and 5c).
Numbers of deaths at a given age x are divided into deaths in two generations: generation g reaches age x within the year; generation g-1 reaches age x the year before. The sum of the deaths in the two generations gives the number of death at a given age.
Source is INSEE.

2.3.2 Extract of Data: Deaths

Table 5 a - Deaths, from 1950 up to 1997, men and women

Year	age					…				
	0	0	1	1	2	…	121	122	122	not declared age
	g	g-1	g	g-1	g		g-1	g	g-1	
1950	32747	12096	2441	1649	791		0	0	0	144
1951	30621	11369	2852	1726	834		0	0	0	136
1952	26783	10356	2477	1971	782		0	0	0	180
1953	25671	8066	1846	1446	729		0	0	0	134
1954	24832	8196	1771	1446	606		0	0	0	106
1955	23368	7762	1871	1346	596		0	0	0	117
1956	22554	6641	1378	1139	551		0	0	0	0
1957	21660	5845	1647	1153	591		0	0	0	0
1958	20138	5426	1415	1004	494		0	0	0	0
1959	19538	4859	1265	1011	487		0	0	0	0
1960	18677	3807	1080	812	461		0	0	0	0
1961	17838	3655	1109	711	424		0	0	0	0
…	…	…	…	…	…		…	…	…	
1984	5253	1046	267	269	188		0	0	0	0
1985	5271	1118	296	256	147		0	0	0	0
1986	5168	1089	249	241	170		0	0	0	0
1987	4907	1110	254	236	153		0	0	0	0
1988	4973	1071	293	230	179		0	0	0	0
1989	4740	1029	262	223	159		0	0	0	0
1990	4531	1068	237	216	158		0	0	0	0
1991	4487	1024	245	247	121		0	0	0	0
1992	4041	1034	208	191	131		0	0	0	0
1993	3678	926	200	209	118		0	0	0	0
1994	3437	756	174	172	117		0	0	0	0
1995	3014	531	184	173	98		0	0	0	0
1996	2986	515	172	148	104		0	0	0	0
1997	2954	485	160	162	83		0	1	0	0

2.3.3 Deceases and causes of deceases

If we consider the number of deceases in relation to the population structure (decease rate), in fact we notice a fall of decease probabilities. Since 1995-96, the fall of more 65 years rate decease is less pronounced.

Main causes of deceases (not premature) are (in 1996, HCSP 1998): cardio vascular diseases (32% of the total mortality rate), tumours (28%), violent deaths (9%) and respiratory diseases.

3 Lifecourse

3.1 Data required

As regards lifecourses, please find even scattered data for as many as possible major events in a typical (synthetic) life span. We are not following actual generations, but rather offering a picture of a synthetic generation made up of different ones. We are interested in cross comparison between countries as for at what age, in different years, these major events take place for the average individual or household. This evidence must be around in different sources. Try to gather it. Only in extreme cases would we come down to raw data from household surveys or the like (ask your sociologist fellows or look at the typical "a portrait of the Spaniards" etc.)

Table 6 data required concerning in Life courses by gender

Country	1950	up to	2001
Age at which school ends			
Age at household formation			
Age at first child			
Retirement age			
Age at widowhood			

School ending should be secondary education or previous studies to a University degree
Ages for the average individual living at a given year and undergoing a given event (synthetic generations)

3.2 Data available

We found only partial data on life courses.
In *lifecourse.xls* have been collected:

- mean age at full-time school termination (table 7) for 1940 and 1968 generations.
- mean age at retirement (table 8) from 1970 up to 2001
- mean age at decohabitation (leaving parental home) for 1963 and 1970 generations (table 9)
- mean age at first birth (table 10)
- mean age at first marriage (table 11)
- Mean age of widowed people for widowed people in the year (figure 4)

Table 7 : Mean age at full-time school termination

1940 born cohort	16 years and 2 months
1968 born cohort	19 years and 4 months

In Baudelot-Establet (p. 150) "avoir 30 ans en 1968 et 1998"

Table 8 – Mean age at retirement

age at asserting his rights to retirement

years	(Total rights) Mean age
1970	64.63
1975	63.83
1980	63.73
1985	62.92
1990	62.34
1991	62.26
1992	61.95
1993	61.92
1994	61.94
1995	61.98
1996	62.02
1997	62.05
1998	62.04
1999	62.03
2000	62.17
2001	62.16

CNAV : www.cnav.fr

Table 9 : Mean age at decohabitation (leaving parental home)

1963 born cohort	21 years
1970 born cohort	23 years

In Galland and Meron (1996), Données sociales, INSEE

Table 10 - Mean age at first birth

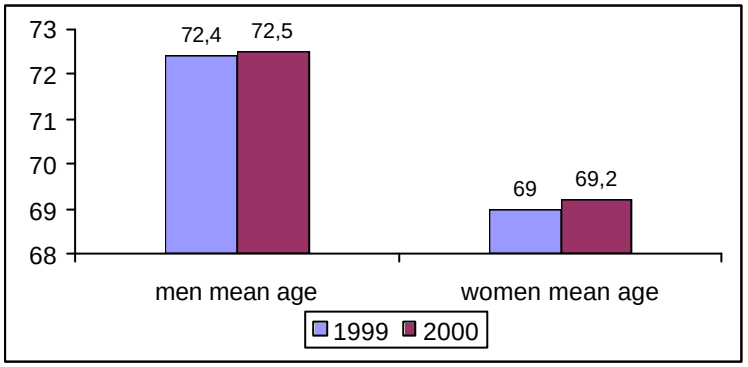
1950	24
1955	24,3
1960	25
1977	26,5
1980	26,8
1985	27,5
1990	28,3
1992	28,5
1993	28,7
1994	28,8
1995	29
1996	29
1997	29,2
2000	29,3

Table 11 - Mean age at first mariage

	women	men
1970	22,4	24,4
1990	25,7	27,8
1992	26,3	28,3
1994	27	29
1997	27,7	29,7

INSEE, tables of french economy

Figure 4 : Mean age of widowed people (for widowed people in the year)



The rough variable doesn't exist but Insee data about civil status provide number of widowed of the year by age and birth year. Thus, we can calculate mean age of widowed people for men and for women. On average, men widowed are elder then women cause of disparities of mortality (women die latter than men). Increasing of life expectancy appears in weak rise of mean age.

3.3 Comments on life course

(a) Duration of active life reduction:
Rise in age at which school ends : studies are longer. But there are still 50 000 young people who leave school without diploma.
Fall in retirement age: legal age fall from 65 to 60 in 1983.
There are several definitions of retirement age: legal age; average age at asserting his rights to retirement (61,5 in 1994); average age of leaving activity (57,5 in 2000). Considering all definitions it falls.
➔ weak activity rates in extreme age-groups: in 2000, 56% for 20-24 Men; 67% for 55-59 Men, 15,5% for 60-64 Men (see WP2)

(b) Delay of life cycle steps:
Rise in main steps: Median age at leaving parental home, average age at first marriage, average age at first birth.
➔New familial schemes: non marital cohabitation, births out of marriage.

(c) Problem of retirement in France

Demographic dependence ratio (number of 60+ / number of active 20-60) increase: in 1995, the demographic dependence ratio were 4 retired people for 10 workers (unemployed included). Forecasts evaluate 7 retired people for 10 workers for this ratio in 2040.

Table 12 : Demographic dependence ratio

	1995	2005	2010	2020	2030	2040
60+ /20-60	**0,39**	0,40	0,43	0,53	0,64	**0,71**

French pension scheme : **pay-as-you-go scheme**

Equal to 12.6 % of GDP (10,4 en Europe)
Not homogeneous : 26 social security systems
Complementary mandatory systems (AGIRC, ARRCO)
Weak activity rates in extreme age-groups (M 20-24: 56% - M 55-59: 67%, **M 60-64: 15,5%** cf. WP2)
1983: legal retirement age passed from 65 to 60 when *increased in others countries*.
High pension level
High buying power related to actives

1993 reform (Balladur):

- Private sector only concerned
- Extension of contribution length : from 37,5 up to 40 years
- Extension of reference length for pension calculation : from 10 to 25 best years
- pension index linked to inflation (before linked to wages)

Reforms are difficult to impose in public sector (big strikes in 1995)

Recommendations:

- Extension of contribution length : from 40 up to 42,5 years (Charpin, 1999)
- Extension of employment population: increasing of activity rate for senior (+ 55 years) population. Recommendation of European Commission in 1999 : employment rate equal to 50 % for 55-64 years population
- More flexibility in the choice of age of retirement (Taddéi, 2000)

Today ?
A reform should be carried on during this year.
At first, Raffarin government would seem to correct iniquities between the private sector and state employees. That's possible it decided to increase contribution length for state employees.

4 Morbidity

4.1 Data required

Morbidity includes both health and disability. We are still working on the proper template to ask you to fill in. Meanwhile, please take the following comments into account.
Concerning health we want the numbers of those declaring their health status as perceived by themselves and the total number of respondents to the different surveys. Grades should be: very bad, bad, average, good and very good, or similar grades.
Concerning disability, the think is more complicated. We are thinking in establishing four major categories (that must be synthetic): blindness, deafness, motorial disability and mental insufficiency, and grades within each category. Deaf-mutism will be included in deafness. Motorial disability must be a synthesis of several items (we are working on that). Mental insufficiency must exclude mental disorders but refer to permanent conditions.
Concerning chronic illness, we are not going to use this kind of data in WP1, but they are important for assessing health expenditure (WP2). Given that these data is currently contained in health surveys that the teams are going to browse for us, we could ask you to provide us with whatever you deem necessary in order to keep Erika informed for their tasks in WP2.

4.2 Data available

Two surveys conducted by INSEE provide information on health *perceived*:

- Permanent survey of living conditions' households, may 1999 (Enquête permanente Conditions de vie (EPCV)). Household interviewed for EPCV are representatives of those living in ordinary home (institutions are not included)
- Handicaps, impairments, and dependency Survey (HID) (see annex) in witch data are being separately for people living in institutions(late 1998) and in households (late 1999).

The national surveys don't include information on observed health. All indicators are declared by the respondents and not by doctors.

The data about morbidity, we present, are provided by HID survey. The first wave of the INSEE survey on handicaps, impairments, and dependency (hereafter HID) was carried out in late 1998. It covered a sample of about 15,000 people living in institutions even temporarily, as is the case with many people treated for mental illness. The institutions included homes for the elderly, homes for young and adult persons with disabilities, and psychiatric institutions. The same persons will be surveyed again in late 2000. The HID survey (in French: Handicaps-Incapacités-Dépendance) looks at the effects of health problems on people's physical integrity, daily living, and social relationships. The emphasis is on social issues rather than medical ones—specifically, the technical and human assistance needs, and the assistance actually provided. The survey paints a broader picture of the health field without overstepping its bounds." [*Extract from Mormiche, 2001*]

Two surveys are available :
- HID in institutions in 1998 (with weighting : 220 000 men and 419 000 women)
- HID at home in 1999 (with weighting : 22,7 millions of men and 24,4 millions of women)

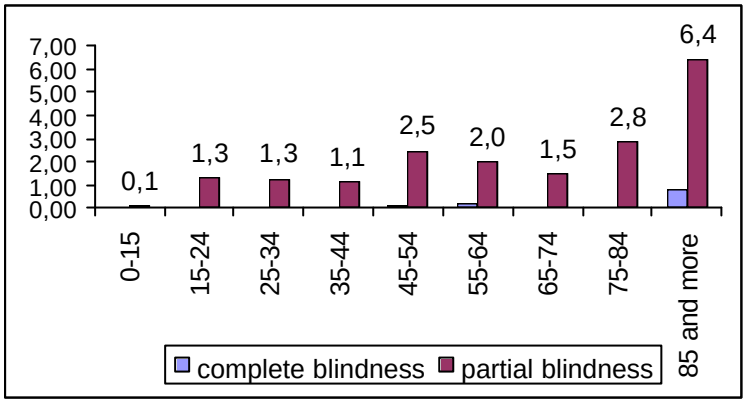
We have collected all data in many excel files :
morbiditylegos.xls for questions relative to blindness, deafness, mental health, mobility handicap (4)
lifecourse.xls for questionsrelative to Perceived health status
katz.xls for questions relative to katz dependency
life expectancy.xls for questions to HLE and DFLE

To obtain a complete population, we have added results of both surveys (institution and home).
Data required concerns in ***blindness (1), deafness (2), mental health (3), mobility handicap (4), Perceived health status (5), Health Life expectancy (6), Katz dependency indicator (7), and Disability Free Life Expectancy (8)***.

1- Vision impairment

Two levels of handicap are defined : complete blindness and partial blindness (in fact, partially sighted). Others troubles of vision are not considered (colours, visual scope,…). Figures 5 and 6 show the part of the population concerned in vision impairment by sex.

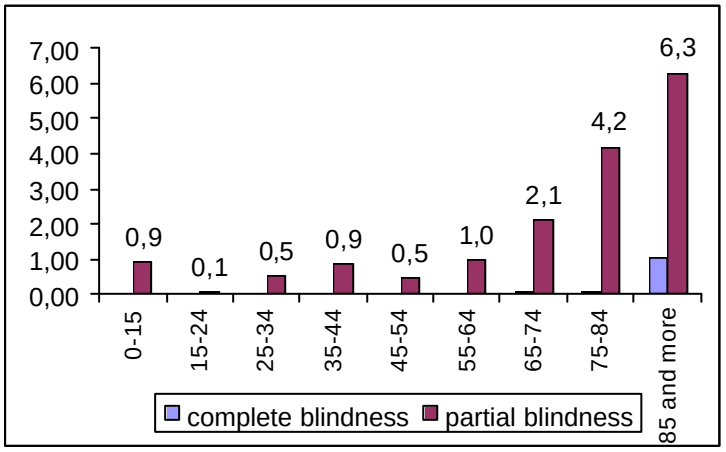
Figure 5 Vision impairment by age group, men, 1999 (%)



see file morbiditylegos.xls – "blindness" indicator

In 1999, complete blindness concerns in a very small part of the male population, we can only notice that the proportion of blindness increases significantly after 85 years (even if the percent stays very weak). Evolution of partial blindness (which measure the number of partial sighted) is non-linear, nevertheless from 65 years it increases in exponential manner, reaching 1,5 % for men aged 65-74, 2,8 % for 75-84 age-group and more 6 % for the oldest age group.

Figure 6 Vision impairment by age group, women, 1999 (%)



see file morbiditylegos.xls – "blindness" indicator

The same observations about female population (see before figure 6) give the same results and in the same proportions. But, in contrary to men, evolution of partial blindness for women is truer to intuition with an important increasing from 45 years (from 0,5 % for men aged 45-54 to 6,3 % for men ages 85 and more).

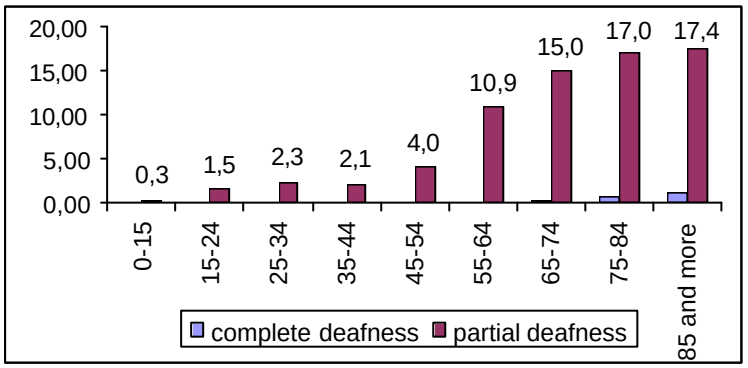
To conclude, the proportion of population suffering partial blindness is over-represented because we reject others vision troubles like colours problems or reduced scope of vision. In 1999, on average less of 2 % of the

population is concerned in suffering vision impairment as it defined. Globally, there is a relationship between age and eyesight problems in particular for women.

2- Deafness

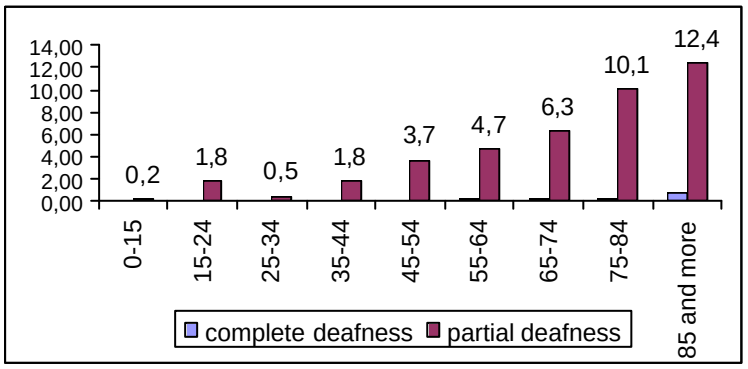
In the data base, two modes describe hearing impairment : complete deafness and partial deafness (hearing impaired people). Deafness affects 5 % of the entire population. There is a gap between gender in favour to women. In average 6,4 % of men suffers hearing impairment whereas 4,4 % of women are concerned. From 55 up to 75 years, the part of men suffering population strongly increases (respectively 4%, 10 % and 15 %). After 75 years, the growth is less important (only 2 points). Gender differences grow with age they are maximal for 55-64 age group (9 points).
Then, the link between age and hearing problem is clearer than for vision impairment. And this type of health problem is more frequent in the population than vision impairment.

Figure 7 Hearing impairment by age group, men, 1999 (%)



see file morbiditylegos.xls –"deafness" indicator

Figure 8 Hearing impairment by age group, women, 1999 (%)



see file morbiditylegos.xls 1 – "deafness" indicator

3- Mental health

Two index give an idea of mental health.

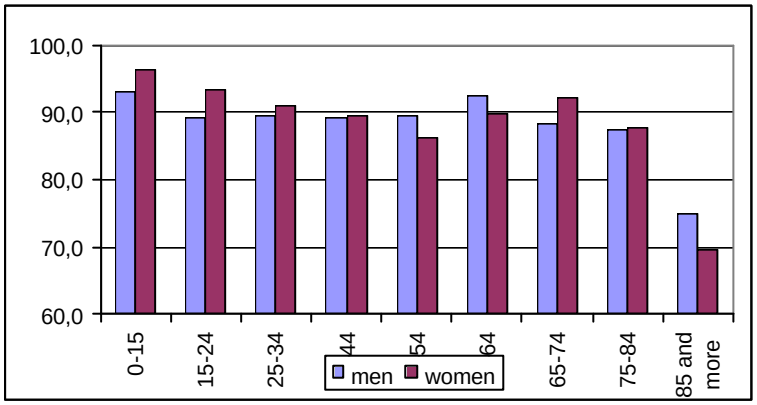
At first, EHPA indicator (figure 9A) is a crossed variable between psychic dependence and Colvez indicator (see below colvez definition). This index permit to characterize psychic dependence and psychic independence, the dependence represents people confined at home, need care for toileting or dressing, and need care for going out and other psychic dependents.

The second index (figures 9B) defines psychic dependence as persons suffering of psychological troubles (behaviour, personality, relationship abilities, depression, humour), others persons look upon as psychic independence persons.

We choose to present psychic independence by age group. According to the definition of psychic independence, the results are different. However, both index don't allow to establish a correlation between age and the psychic independence in particular on figure 9B. An analysis of gender differences underlines a women disadvantage on end of life course whereas for the young age-group the drawback is for men.

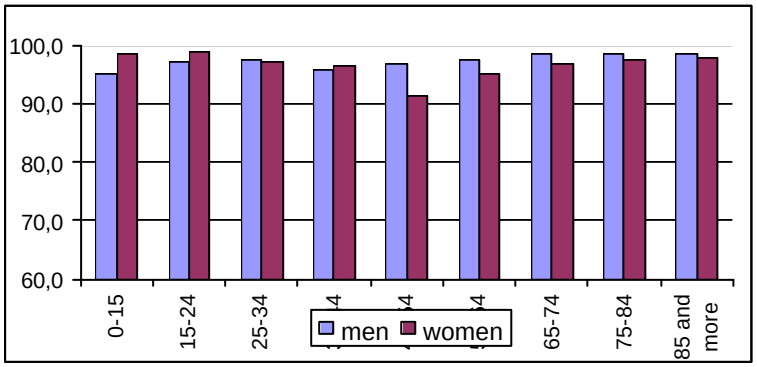
The main divergence between index is, in one hand, according to EHPA index disparities are clear : the variance is more important (than with the second definition) between sex (for the oldest age group the gap is 5 points in favour to men : 74.9 % of men are independent psychic against 69.7 % of women) in the other hand, discrepancies between age group are more marked for women (96.3 % for 0-15 years and 69.7 % for the oldest women) than for men (93 % at the beginning of life and 74,9 % at the end). The measure of psychic independence in the second case (figure 9B) is very constant with age and gender, it interests in a comparative approach is very limited. In fact, population with good health always represents more 90 % of the population.

Figure 9A - Psychic independence (with EHPA indicator) by age group, 1999 (%)



see file morbiditylegos.xls – "ehpa" indicator

Figure 9B - Psychic independence by age group, 1999 (%)



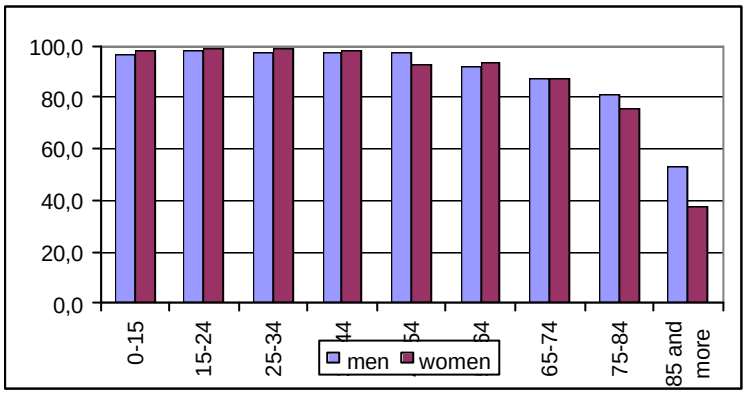
see file morbiditylegos.xls –"mental" indicator

4- Mobility handicap

A) Colvez indicator

We can find in the HID survey the Colvez indicator, it gives a measure of mobility handicap. It contains four modes : three modes determinate a dependency situation (confined at home, need care for toileting or dressing, and need care for going out) and the rest of the population is in a last mode which represent no limitations of mobility. The following figures, present the independent population.

Figure 10A Population with no limitation on mobility by age group, 1999 (%)

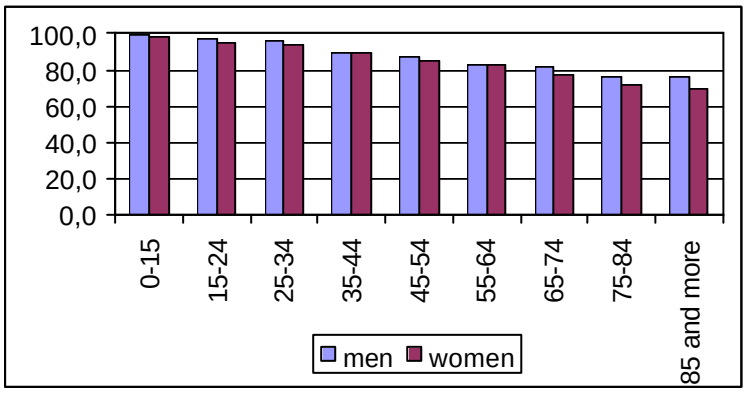


see file morbiditylegos.xls –indicator "colvez"

Of course, the part of population with no limitations on mobility drops with age. The risk of handicap is constant until 54 years (less 10 %), mobility handicap clearly appears after. From 75, the aging is heterogeneous by sex and affects a part of men more important than women. In the oldest age-group, women are 37,2 % suffering no limitation in mobility, the part of independent men represents 53,3 % of the male population. An age effect can explain a part of this gap : women are more aged than men in this group.

B) Mobility indicator

Figure 10B Population with no limitation on mobility by age group, 1999 (%)



see file morbiditylegos.xls –"mobility" indicator

This indicator reflects to the part of independence population about mobility. In HID, we have considered as dependent, people who suffer motor problems (hemiplegia, tetraplegia, paraplegia and other motor problems). There is a strong link between age and problems of mobility. The drop of part of independence population is constant in contrary to measure with Colvez indicator. However, this indicator seems to surevaluate the

independence population because a big majority (over 70 %) of the oldest age group enters in independence category.

Even if figures between index are different, the trend is similar : with age, population used to have mobility problem especially for women.

5) Perceived health status in 1999

In *lifecourse.xls* have been also collected perceived health status in 1999, by age group and gender (table 6)

Source is Permanent survey of living conditions' households (may 1999, EPCV, INSEE). Surveys on households lifestyles are conduced three times per year. The survey of may deals with health questions. It is organized in face to face by INSEE interviewers.
57 800 households replied to the may 1999 survey. In each household, a random selection of persons more than 14 years old (at the most three persons by household) were interviewed: sample is finally composed of 10 987 individuals.
Household living in independent house belongs to the scope survey, then *persons living in institution are excluded*.

Persons replied to the question :
" At the moment, do you consider that your health status is : very good, good, fair, bad or very bad ?"

This question does not consider precise symptoms or pathologies but it reflects to personal appreciation depending to psychological factors (family, living conditions etc). Perceived morbidity will be different to declared morbidity, and morbidity which brought about care recourses. More of 25 % of interviewed persons naturally declare that they consider their health status as "very good" and nearly 50% as "good".

Table 13 : health status (men) in 1999

	very good	good	fair	bad and very bad	total
0-15	38,2	49,3	11,7	0,8	100
15-24	53,2	38,4	8	0,4	100
25-34	45,4	45,8	8,4	0,4	100
35-44	37,9	48,6	12,3	1,2	100
45-54	23,5	53,3	20,7	2,5	100
55-64	15,9	44,7	33,2	6,2	100
65-74	8,5	38,4	46	7,1	100
75-84	4,7	31,6	49,3	14,4	100
85 and more	5,4	26,2	59,5	8,9	100
Total	33,2	45,4	18,8	2,6	100

Table 14 : health status (men) in 1999

	very good	Good	fair	bad and very bad	total
0-15	37,9	48,3	13,4	0,4	100
15-24	44,5	44,9	10,1	0,5	100
25-34	37,6	51,1	10,1	1,2	100
35-44	32	50,3	16	1,7	100
45-54	23,8	50,9	22,7	2,6	100
55-64	11,3	49,3	35,4	4	100
65-74	5,9	36,7	50,6	6,8	100
75-84	3,3	24,8	62,1	9,8	100
85 and more	3	25	55	17	100
Total	27,7	45,9	23,4	3	100

6) Health Life expectancy (HLE) in 1999

The study of Life Expectancy (LE) is insufficient because the quality of further years isn't considered. The Healthy Life Expectancy (HLE) permit to measure the years in a good health. In the part 5, we looked at the part of the population which declare a good or very good health status with age. From theses data and the mortality tables of INSEE, we calculate for different ages the HLE in two manners : in the large definition (HLE1) and in the strict definition (HLE2).

- HLE1 is calculated by multiplying for each age LE with the probability to be in good or very good health
- HLE2 is calculated by multiplying for each age LE with the probability to be in very good health.

Each table provides LE, HLE, the difference between LE and HLE (equal to the number of years in bad health) and the percent of % HLE (of course equal to the probability to be in good health)

Of course, if you consider HLE the number of years is lower than LE. HLE2 corresponds to the number of expected years lived in a very good health then HLE2 is lower than HLE1.

Table 15 A : Life expectancy and Health Life expectancy (in good or very good health) in the male population in 1999

	LE	**probability to be in good or very good health**	**HLE1**	LE-HLE	%HLE
15	60,7	0,87	52,81	7,89	87
25	51,19	0,96	49,14	2,05	96
35	41,78	0,87	36,35	5,43	87
45	32,69	0,73	23,86	8,83	73
55	24,22	0,67	16,23	7,99	67
60	20,27	0,7	14,19	6,08	70
65	16,6	0,56	9,30	7,30	56
70	13,25	0,43	5,70	7,55	43
75	10,21	0,41	4,19	6,02	41
80	7,52	0,32	2,41	5,11	32
85	5,31	0,43	2,28	3,03	43
90	3,69	0,26	0,96	2,73	26

Table 15 B : Life expectancy and Health Life expectancy (in very good health) in the male population in 1999

	LE	**probability to be in very good health**	**HLE2**	LE-HLE	%HLE
15	60,7	0,62	37,63	23,07	62
25	51,19	0,58	29,69	21,50	58
35	41,78	0,45	18,80	22,98	45
45	32,69	0,28	9,15	23,54	28
55	24,22	0,23	5,57	18,65	23
60	20,27	0,14	2,84	17,43	14
65	16,6	0,17	2,82	13,78	17
70	13,25	0,08	1,06	12,19	8
75	10,21	0,04	0,41	9,80	4
80	7,52	0	0,00	7,52	0
85	5,31	0	0,00	5,31	0
90	3,69	0	0,00	3,69	0

Sources : INSEE mortality tables and NHS, 1999.

Men aged 15 expects to live 60,7 years (LE), of which 52,8 in good health (HLE1) and 37,6 in very good health (HLE2). At this age, the probability to be in good health is equal to 87 %. In contrary to young people, men aged 90 expects to live 3,7 years, of which 0,96 in good health and zero in very good health. (see tables 15A and 15B)

Women aged 15 expects to live 68,2 years (LE), of which 61,4 in good health (HLE1) and 35,5 in very good health (HLE2). At this age, the probability to be in good health is equal to 90 %. Women aged 90 expects to live 4,4 years, of which 0,88 in good health and zero in very good health.(see tables 16A and 16B)

Whatever age, women live longer than men but from 55 years each associated probability to be in good health are wore for women than men. From 75 years, even if the women life expectancy is longer than men, women can expect to live less healthy years. We notice, for example at 75 years men expect to live 10.2 years versus 13.05 years for women but the healthy life expectancy is the same for men and women. The quantitative female advantage in number of life expectancy is reduced by the quality of life calculated from health status.

Table 16 A : Life expectancy and Health Life Expectancy (in good or very good health) in the female population in 1999

	LE	**probability to be in good or very good health**	**HLE1**	LE-HLE	%HLE
15	68,18	0,9	61,36	6,82	90
25	58,38	0,85	49,62	8,76	85
35	48,64	0,85	41,34	7,30	85
45	39,12	0,78	30,51	8,61	78
55	29,95	0,62	18,57	11,38	62
60	25,47	0,64	16,30	9,17	64
65	21,12	0,47	9,93	11,19	47
70	16,97	0,39	6,62	10,35	39
75	13,05	0,32	4,18	8,87	32
80	9,54	0,08	0,76	8,78	8
85	6,59	0,3	1,98	4,61	30
90	4,42	0,2	0,88	3,54	20

Table 16 B : Life expectancy and Health Life Expectancy (in very good health) in the female population in 1999

	LE	probability to be in very good health	HLE2	LE-HLE	%HLE
15	68,18	0,52	35,45	32,73	52
25	58,38	0,35	20,43	37,95	35
35	48,64	0,46	22,37	26,27	46
45	39,12	0,32	12,52	26,60	32
55	29,95	0,13	3,89	26,06	13
60	25,47	0,11	2,80	22,67	11
65	21,12	0,03	0,63	20,49	3
70	16,97	0,05	0,85	16,12	5
75	13,05	0,05	0,65	12,40	5
80	9,54	0	0,00	9,54	0
85	6,59	0	0,00	6,59	0
90	4,42	0	0,00	4,42	0

Sources : INSEE mortality tables and NHS, 1999.

According to these conclusions, the gap between Le and HLE is more important for women (figure 12), in we compare HLE2 by gender, HLE2 becomes zero at 65 for women and 75 years for men.

Figure 11 : LE, HLE1 and HLE2, men, 1999

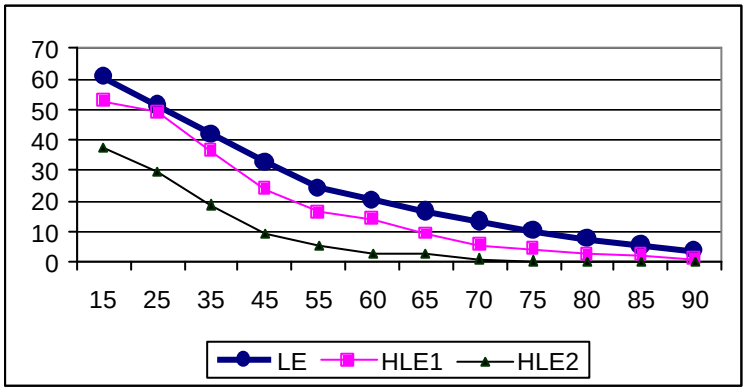
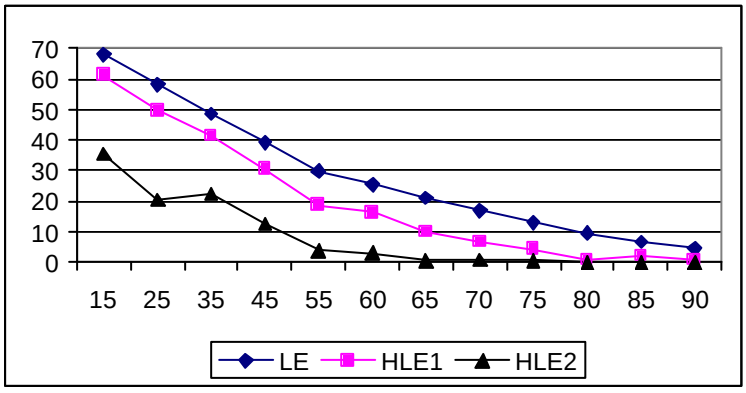


Figure 12 : LE, HLE1 and HLE2, women, 1999



To conclude, the healthy life expectancy is in favour of men because the probability to be in good health is more important for men whatever age. This measure permit to nuance the women advantage of life expectancy.

Nevertheless, that's important to notice that this indicator is calculated from a declaration of persons id-est a perceived health status and studies show that women trend to overestimate health problems in contrary to men.

7 - Katz dependency indicator in 1998-1999

In *katz.xls* have been collected dependency degree (indicator katz) for men and women for the both surveys (home and institutions). Source is HDD data (see annex).

Katz indicator has many dependency levels, it is defined with following activities daily living (washing, dressing, toileting, getting in and out of bed, getting continent, eating):

A- Independency
B- One ADL dependency
C- Two ADL dependencies (washing included)
D- Three ADL dependencies (washing and dressing included)
E- Four ADL dependencies (washing, dressing, toileting and getting in and out of bed included)
F- Five ADL dependencies (washing, dressing, toileting, getting in and out of bed included, and getting continent included)
G- Complete dependency
H- Dependency for more one ADL (different of C-D-E-F)

As recommended, we only consider population over 15.

Table 17 : Dependency degree (men at home 1999) in %

KATZ	15-60	60-70	70-75	75-80	80-85	85-90	90 and more	*total*
A	98,4	95,2	92,9	89,3	87,3	77,7	70,7	***96,9***
B	1,2	3,4	4,2	6,1	4,9	12,6	9,5	***1,97***
(...)	(...)	(...)	(...)	(...)	(...)	(...)	(...)	(...)
H	0,05	0,1	0,1	0,3	0,1	0,3	2,1	***0,1***

Extract from *katz.xls*

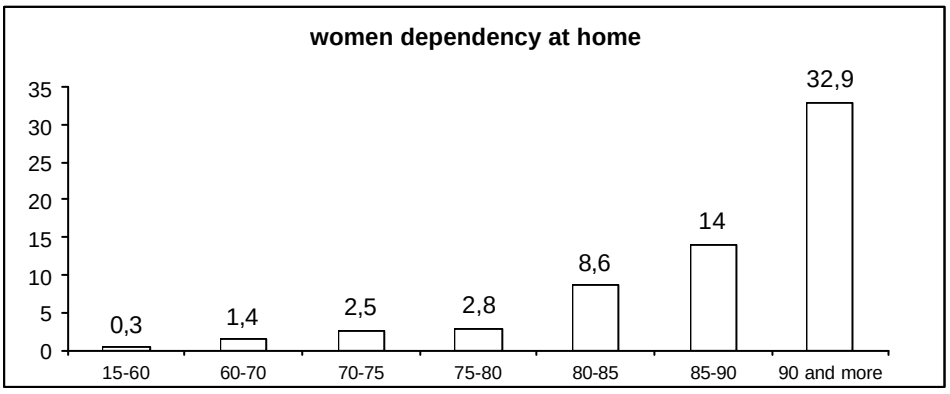
Lecture : 98,4 % of male age-group 15-60 is independent

Analysis :

If we compare home and institutions surveys, independency degree (only A) is naturally higher for persons in institution than at home : in HID 1999 at home 97 % of men are independent whereas they are 54.9 % in HID 1998 in institutions.

Dependency (at least one IADL) increases with age (*example* : women dependency at home)

Figure 13 : Women dependency at home



If necessary, it might be possible to provide individual characteristics combined with health status perceived.
For data on disability we have information in HID survey but we need more precision on disability categories definition.

8- Disability Free Life Expectancy

Now, we calculate Disability Free Life Expectancy from data on disability (KATZ category A- see below methodology in part 7) provided by HID (entire population) survey and mortality tables of INSEE.
DFLE measures the number of expected years without disability.
DFLE is calculated by multiplying for each age LE with the probability to live without disability.

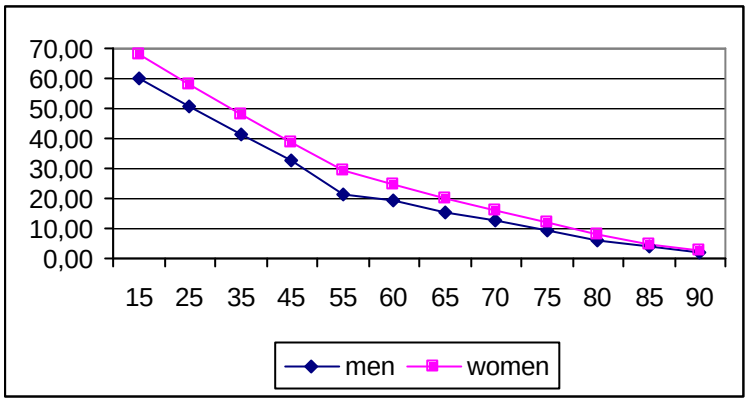
Table 18 : LE and DFLE, by age, men, 1999.

	LE	probability to be without disability	DFLE	LE-DFLE	%DFLE
15	60,7	0,99	59,85	0,85	98,6
25	51,19	0,99	50,93	0,26	99,5
35	41,78	0,99	41,57	0,21	99,5
45	32,69	0,99	32,40	0,29	99,1
55	24,22	0,87	21,07	3,15	87
60	20,27	0,96	19,48	0,79	96,1
65	16,6	0,94	15,55	1,05	93,7
70	13,25	0,93	12,38	0,87	93,4
75	10,21	0,91	9,31	0,90	91,2
80	7,52	0,83	6,22	1,30	82,7
85	5,31	0,77	4,09	1,22	77
90	3,69	0,56	2,05	1,64	55,5

Table 19 : LE and DFLE, by age, women, 1999.

	LE	probability to be without disability	DFLE	LE-DFLE	%DFLE
15	68,18	0,997	67,98	0,20	99,7
25	58,38	0,998	58,26	0,12	99,8
35	48,64	0,988	48,06	0,58	98,8
45	39,12	0,985	38,53	0,59	98,5
55	29,95	0,988	29,59	0,36	98,8
60	25,47	0,98	24,96	0,51	98
65	21,12	0,944	19,94	1,18	94,4
70	16,97	0,941	15,97	1,00	94,1
75	13,05	0,923	12,05	1,00	92,3
80	9,54	0,848	8,09	1,45	84,8
85	6,59	0,722	4,76	1,83	72,2
90	4,42	0,565	2,50	1,92	56,5

Figure 14 DFLE, by age group and gender, 1999.



5 References

Population Projections up to 2050, Insee Première n°762 (mars 2001)
Bilan démographique 2001, Insee Première n°825 (février 2002)

Colin C., avec la collaboration de Coutton V. (2000) : « Le nombre de personnes âgées dépendantes d'après l'enquête Handicaps-Incapacités-Dépendance », Etudes et résultats n°94.

Bontout O., Colin C, Kerjosse R. (2002) : « Personnes âgées dépendantes et aidants potentiels : une projection à l'horizon 2040 », Etudes et résultats n°160.

D. Blanchet et J.-A. Monfort : « L'âge et la durée de la retraite depuis 50 ans », *INSEE Première* nº 448, 1996.

" Des retraites qui vont continuer à croître *", Données sociales, INSEE 1999*

La santé en France 1994-1998, Haut Comité de la Santé Publique, La Documentation Française.

Jacobzone S., Cambois E., Chaplain E., Robine J.-M. (1998) : The health of older persons in OECD countries : is it improving fast enough to compensate for population ageing ?, *Labour Market and Social Policy Occasional Papers* n°37.

L'espérance de vie sans incapacités : faits et tendances, premières tentatives d'explication, sous la direction de J. Dupâquier, PUF, 1997.

TEF 1999-2000 : « Tableaux de l'économie française », INSEE.

5 Annexs

5.1 Data provided by Legos

5.1.1 July 2002

France : data gathering for WP1

Since February 2002, the LEGOS has been trying to collect the data necessary for WP1 of the AGIR project. Some data have been collected easily and are here enclosed. However, we have encountered some problems for life courses and morbidity data.

In this presentation, we follow your data requirement order. Data files are Excel 2000.

1) Population

In *PopulationWP1.xls* have been collected:

- Population for metropolitan France by age and gender, from 0 up to 100 years, 1st January, from 1950 up to 1998 (tables 1a, 1b and 1c).

Source is INSEE (National Institute of Statistical and Economical Studies)

- Population Projections for metropolitan France by age groups and gender (Table 2) up to 2050. Projection hypothesis are: trend mortality, fecundity: 1.8, net migrations: + 50 000 by year

Source is INSEE, Insee Première n°762.

2) Survival and mortality and 3) Expectancies

In *SurvDeath5097.xls* have been collected:

- Survivors, deaths and life expectancy by age and gender (100.000 cohort) from 1950 up to 1997 (tables 3a, 3b and 3c). There is a mortality table for each year from 1950 up to 1997.

In *SurvDeath982050.xls* have been collected:

- Projections for survivors, deaths and life expectancy by age and gender (100.000 cohort) from 1998 up to 2050 (tables 4a, 4b and 4c). There is a mortality table for each year from 1998 up to 2050.

Sources: INSEE, INED (National Institute of Demographic Studies): Vallin et Meslé, Tables de mortalité françaises et projections, Données statistiques, n°4-2001.

In *Deathswp1.xls* have been collected:

- Number of deaths by age and gender from 1950 up to 1997 (tables 5a, 5b and 5c). Numbers of deaths at a given age x are divided into deaths in two generations: generation g reaches age x within the year; generation g-1 reaches age x the year before. The sum of the deaths in the two generations gives the number of death at a given age.

Sources: INSEE

According to other data on longevity (life endurance, median duration, modal life duration, record age): we didn't find direct information. However, life endurance and median duration might be deduced from mortality tables *SurvDeath5097.xls*; and, modal life duration from *Deathswp1.xls*.

We are less optimistic about actual record age. In all mortality tables maximum age is 105.

4) Morbidity

Two surveys conducted by INSEE provide information on health *perceived*:

- Living conditions Survey, may 1999 (Enquête permanente Conditions de vie (EPCV)). Household interviewed for EPCV are representatives of those living in ordinary home (institutions are not included)
- National disability interview (HID) in witch data are being separately for people living in institutions(HID-Institutions 1998) and in households (HID-Households 1999). Katz indicator is available.

The national surveys don't include information on observed health. All indicators are declared by the respondents and not by doctors.

In *lifecourse.xls* have been collected:

- Perceived health status in 1999, by age group and gender (table 6)

Source: Enquête permanente Conditions de vie (EPCV), mai 1999, INSEE

Katz indicator repartition in the whole population will be soon available with HDD data.

If necessary, it might be possible to provide individual characteristics combined with health status perceived. For data on disability we have information in HDD survey but we need more precision on disability categories definition.

5) Life course

We found only partial data on life courses.
In *lifecourse.xls* have been collected:

- average age at full-time school termination (table 7) for 1940 and 1968 generations.
- average age at retirement (table 8) from 1964 up to 1994
- median age at decohabitation (leaving parental home) for 1963 and 1970 generations (table 9)
- average age at first birth (table 10)
- average age at first marriage (table 11)

5.1.2 January 2003

Katz indicator by HDD

5.2 Surveys used

5.2.1 Handicaps, Disabilities, Dependency Survey (HDD)

In France, concerning disability data, there is a recent survey realized by INSEE since 1998.

INSEE
Surveys periods : late 1998 and late 2000 for HID data collected in medical institutions
late 1999 and late 2001 for HID data collected at home
Scope: all population (individuals with disabilities over-represented but representative after weighting)

Survey's focus:	Trips
Cause and origin of disabilities	Education and degrees
Description of disabilities	Employment
Social and family environment	Income and administrative situation
Technical aids and housing adjustments	Leisure activities, holidays, culture
Housing conditions	Main carer (at home)

The particularity of this survey is that individuals with incapacities are over-represented. Nevertheless, the representativity can be corrected after weighting.

Two surveys are available :
- HID in institutions in 1998 (with weighting : 220 000 men and 419 000 women)
- HID at home in 1999 (with weighting : 22,7 millions of men and 24,4 millions of women)

In fact, this survey is composed of two samples of individuals :

- The first sample is concerning people living in institutions (medical or not). 15.000 individuals have been interviewed twice, in 1998 and in 2001. Near from 70% of the first sample have been interviewed in the second wave. Some died between the two dates and the others came back home.
- The second sample is concerning people living at home. 17.000 individuals have been interviewed twice in 1999 and in 2002.

The first wave of the INSEE survey on handicaps, disabilities, and dependency (hereafter HDD) was carried out in late 1998. It covered a sample of about 15 000 people living in institutions even temporarily, as is the case with many people treated for mental illness.
The institutions included homes for the elderly, homes for young and adult persons with disabilities, and psychiatric institutions. The same persons will be surveyed again in late 2000.
The HDD survey (in French: Handicaps-Incapacités-Dépendance [HID]) looks at the effects of health problems on people's physical integrity, daily living, and social relationships. The emphasis is on social issues rather than medical ones—specifically, the technical and human assistance needs, and the assistance actually provided. The survey paints a broader picture of the health field without overstepping its bounds." [*Extract from Mormiche 2001*]

In this survey, information about perceived disabilities is very rich. In particular, many mobility indicators are detailed, like abilities to wear oneself, to wash oneself, to drink and eat oneself, …

These data allow to calculate three subjective indicators about psychological dependency and physical incapacity.

But if this survey is rich in perceived health status indicators, there is few objective information. We can only find an individual invalidity rate used by official services of social security in France to set social benefits.

Finally, HID survey contains many personal characteristics too, like education, household income and social situation.