

## 1 Log files from Stata (external links)

[SHARE-1-harmon \(reshape data\)](#)

[SHARE-2-harmon-Part5 \(generation of disease variables\)](#)

2 Sample Selection

```
name: log
log: C:/Users/User/Documents/GitHub/2-projectMM-SHARE/files/logs/log-sampleselection.txt
log type: text
opened on: 23 Dec 2023, 16:16:06
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. tab hacohort wave,m

hacohort: Sample   cohort	Survey Wave							Total
	2004 wave	2006/07 w	2011/12 w	2013 wave	2015 wave	2017 wave	2019/20 w	
1.Original sample for	51,312	51,312	51,312	51,312	51,312	51,312	51,312	359,184
2.2006 Refreshment sa	5,836	5,836	5,836	5,836	5,836	5,836	5,836	40,852
Total	57,148	57,148	57,148	57,148	57,148	57,148	57,148	400,036

. tab iwstatr wave,m

r interview status	Survey Wave							Total
	2004 wave	2006/07 w	2011/12 w	2013 wave	2015 wave	2017 wave	2019/20 w	
0.inap.	37,079	25,054	17,649	20,009	14,567	1,898	1,730	117,986
1.resp, alive	20,069	25,176	26,853	22,511	23,322	32,289	19,780	170,000
4.nr, alive	0	4,828	7,138	6,779	8,805	8,662	10,489	46,701
5.nr, died this wv	0	279	468	593	603	958	1,061	3,962
6.nr, died prev wv	0	0	660	1,096	1,895	2,799	3,983	10,433
9.nr, dk if alive or	0	1,811	4,380	6,160	7,956	10,542	20,105	50,954
Total	57,148	57,148	57,148	57,148	57,148	57,148	57,148	400,036

. tab countryID wave,m

countryID	Survey Wave							Total
	2004 wave	2006/07 w	2011/12 w	2013 wave	2015 wave	2017 wave	2019/20 w	
AT	1,236	1,236	1,236	1,236	1,236	1,236	1,236	8,652
BG	1,343	1,343	1,343	1,343	1,343	1,343	1,343	9,401
Bf	1,150	1,150	1,150	1,150	1,150	1,150	1,150	8,050
Bn	1,962	1,962	1,962	1,962	1,962	1,962	1,962	13,734
CY	703	703	703	703	703	703	703	4,921
CZ	2,153	2,153	2,153	2,153	2,153	2,153	2,153	15,071
Cf	315	315	315	315	315	315	315	2,205
Cg	991	991	991	991	991	991	991	6,937
Ci	68	68	68	68	68	68	68	476
DE	3,170	3,170	3,170	3,170	3,170	3,170	3,170	22,190
DK	2,369	2,369	2,369	2,369	2,369	2,369	2,369	16,583
EE	4,661	4,661	4,661	4,661	4,661	4,661	4,661	32,627
ES	2,312	2,312	2,312	2,312	2,312	2,312	2,312	16,184
FI	1,425	1,425	1,425	1,425	1,425	1,425	1,425	9,975
FR	3,054	3,054	3,054	3,054	3,054	3,054	3,054	21,378
HR	1,855	1,855	1,855	1,855	1,855	1,855	1,855	12,985
HU	2,320	2,320	2,320	2,320	2,320	2,320	2,320	16,240
IE	764	764	764	764	764	764	764	5,348
IT	2,933	2,933	2,933	2,933	2,933	2,933	2,933	20,531
Ia	337	337	337	337	337	337	337	2,359
Ih	1,693	1,693	1,693	1,693	1,693	1,693	1,693	11,851
Ir	317	317	317	317	317	317	317	2,219
LT	1,390	1,390	1,390	1,390	1,390	1,390	1,390	9,730
LU	1,291	1,291	1,291	1,291	1,291	1,291	1,291	9,037
LV	1,161	1,161	1,161	1,161	1,161	1,161	1,161	8,127
MT	881	881	881	881	881	881	881	6,167
NL	3,146	3,146	3,146	3,146	3,146	3,146	3,146	22,022
PL	2,015	2,015	2,015	2,015	2,015	2,015	2,015	14,105
PT	1,632	1,632	1,632	1,632	1,632	1,632	1,632	11,424
RO	1,592	1,592	1,592	1,592	1,592	1,592	1,592	11,144
SE	2,855	2,855	2,855	2,855	2,855	2,855	2,855	19,985
SI	2,264	2,264	2,264	2,264	2,264	2,264	2,264	15,848
SK	1,790	1,790	1,790	1,790	1,790	1,790	1,790	12,530
Total	57,148	57,148	57,148	57,148	57,148	57,148	57,148	400,036

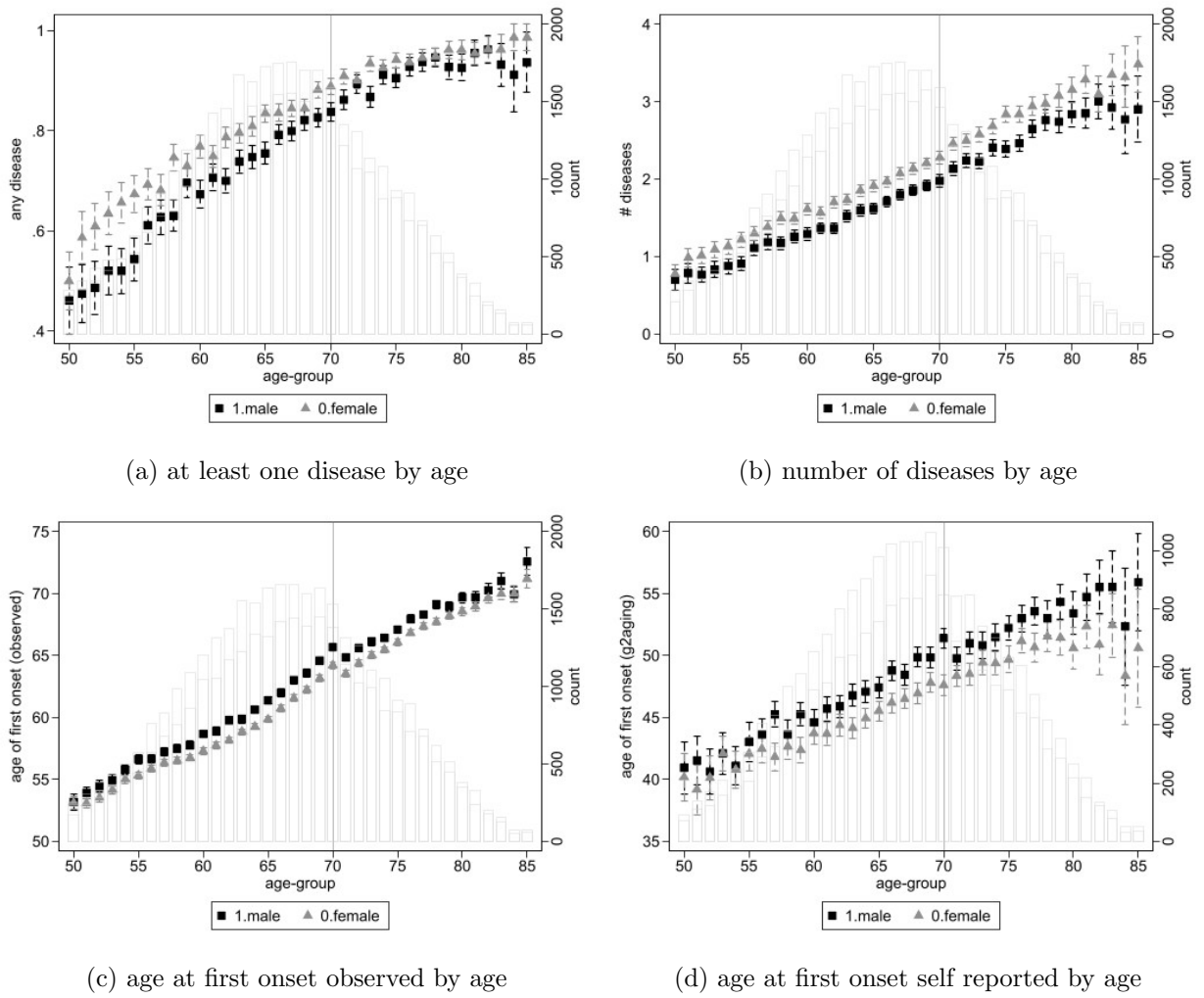
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name: log
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log type: text  
closed on: 23 Dec 2023, 16:16:07

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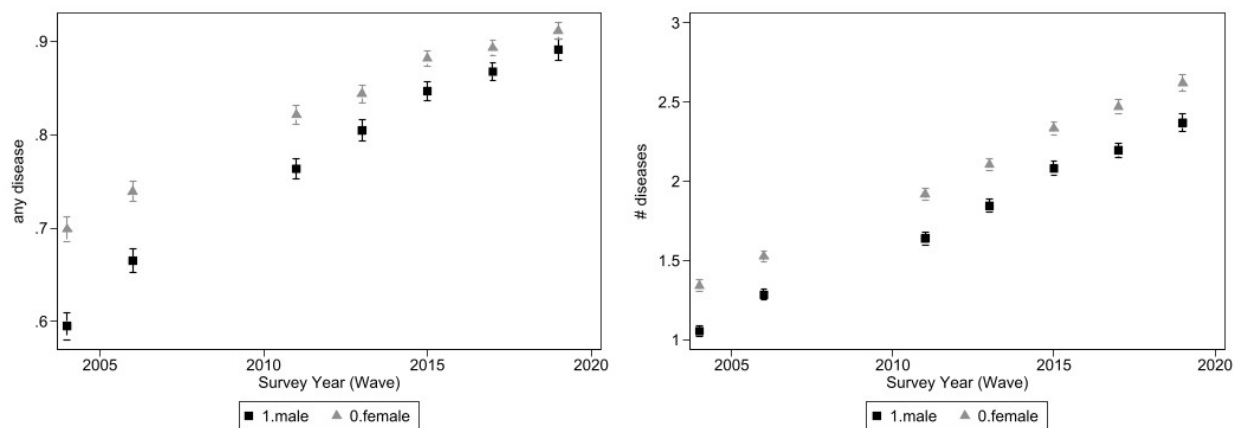
# Figures and Tables

Figure 1: Outcome variable by age group



Note for figure c: For individuals who already have at least one disease at baseline, the age of onset is the baseline age

Figure 2: Any disease and count by wave (calendar time)



Notes: Cohorts 2004 and 2006 are included

(a) Count of Diseases by age at baseline

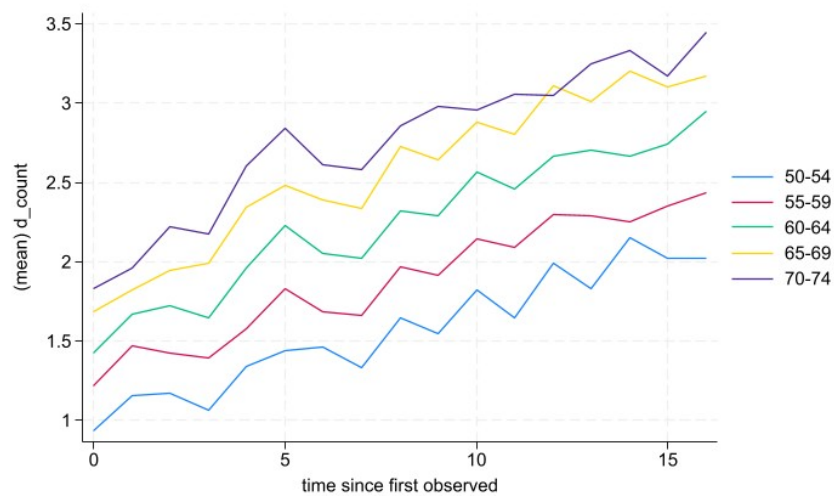
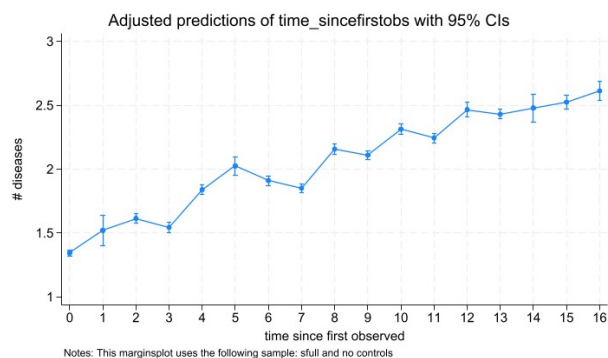


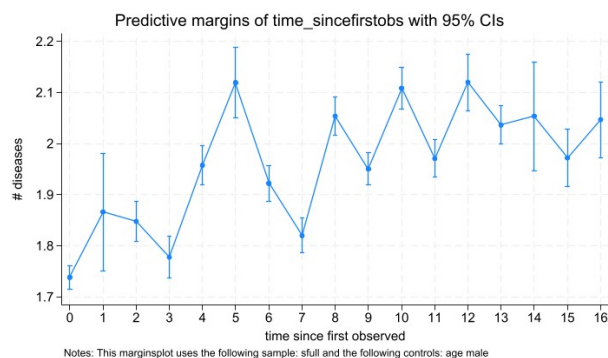
Figure 4: Predictions of disease count adjusted by time since baseline without (left) and with (right - age, gender) control variables

Panel A: Full Sample



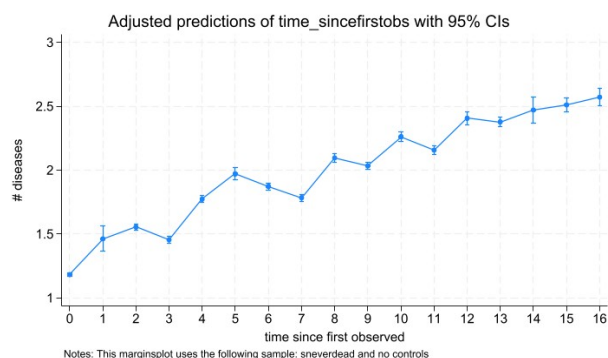
(a) without controls

number of diseases by time of follow-up (years)

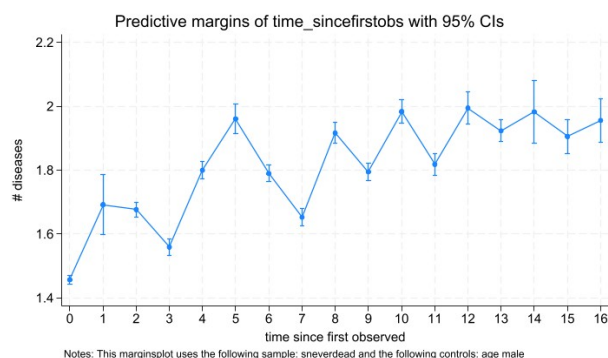


(b) with controls

Panel B: Full sample, accounting for mortality (only people who never die between 2004-2019)

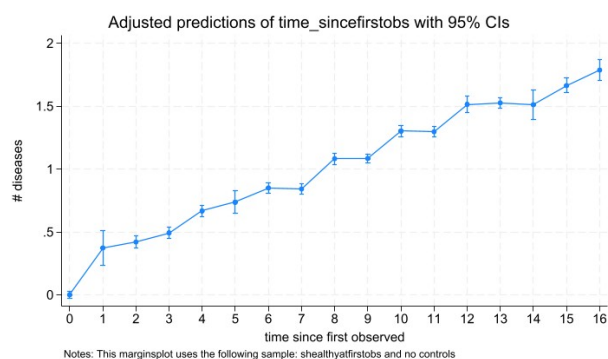


(c) without controls

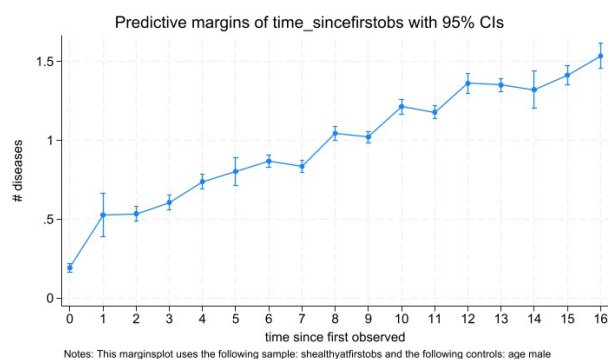


(d) with controls

Panel C: Full sample, but only people who are healthy-at-baseline



(e) without controls

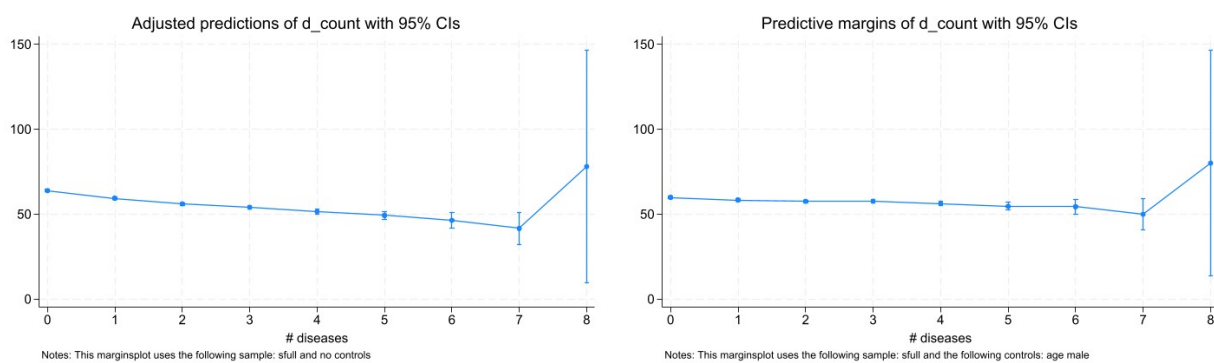


(f) with controls

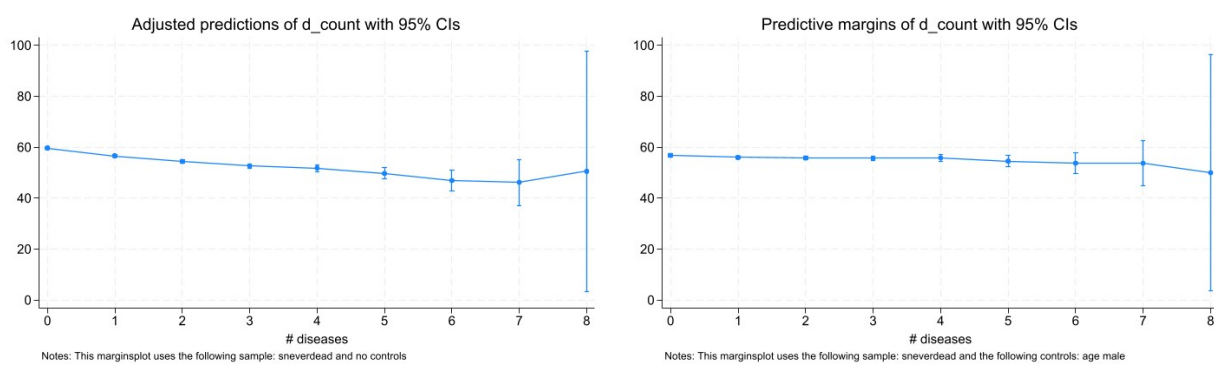
Notes: time\_sincefirstobs refers to years (year at interview rather than survey year/wave)

Figure 5: Duration from count to higher count, by disease count

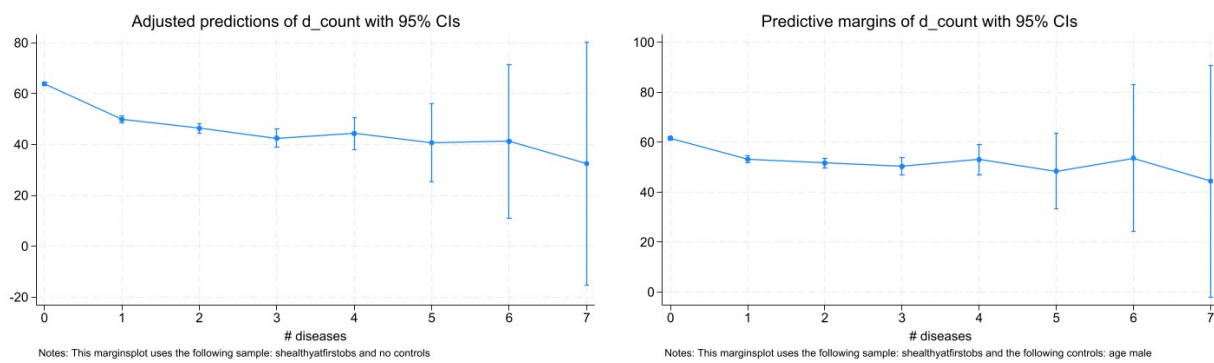
Panel A: Full Sample



Panel B: Full sample, accounting for mortality (only people who never die between 2004-2019)



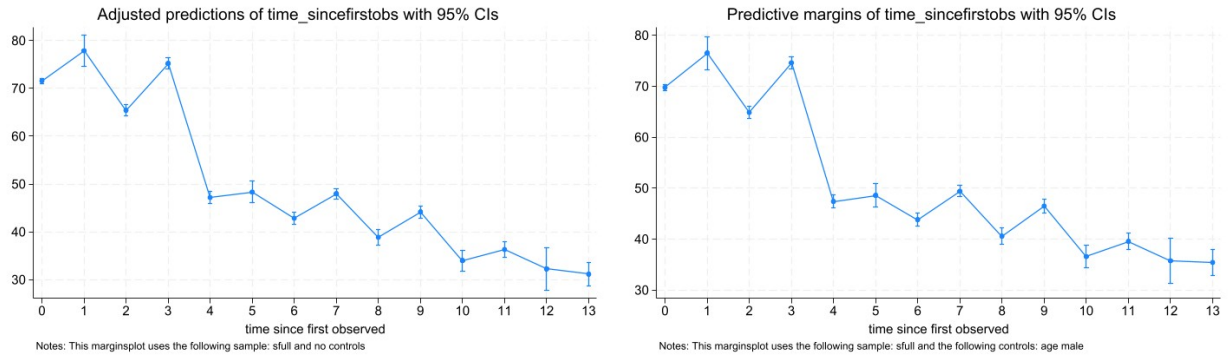
Panel C: Full sample, but only people who are healthy-at-baseline



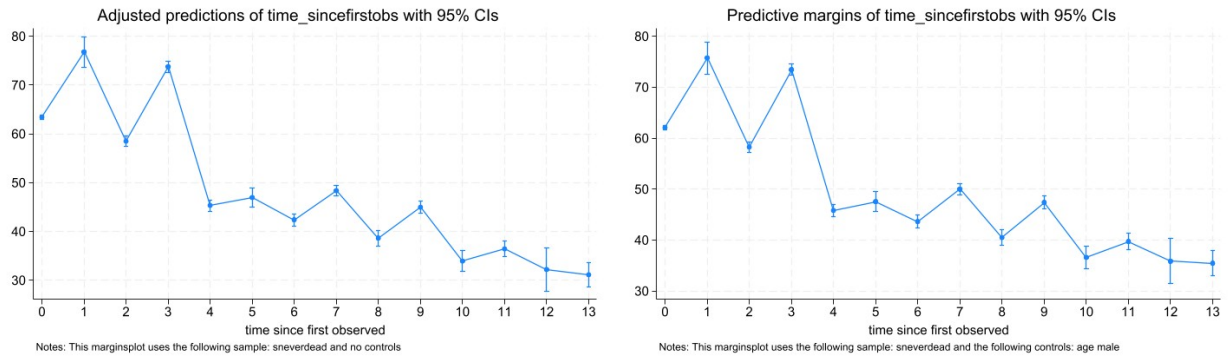
Notes: Only observations with positive changes  $c$  to  $c+1$  diseases are used, which may cause the plots to be similar

Figure 6: Duration from count to higher count, by time

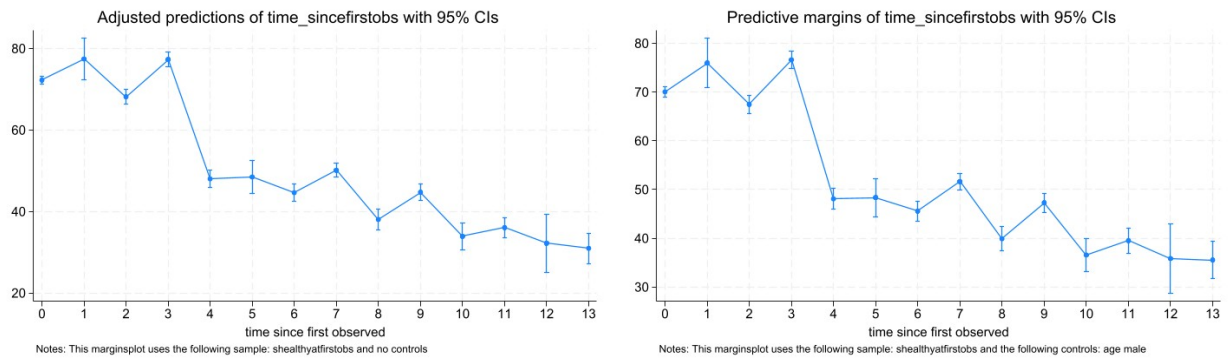
Panel A: Full Sample



Panel B: Full sample, accounting for mortality (only people who never die between 2004-2019)



Panel C: Full sample, but only people who are healthy-at-baseline



Notes: Only observations with positive changes  $c$  to  $c+1$  diseases are used, which may cause the plots to be similar



Note: summary statistics contain the following: nobs — mean(sd)

Table 1: Full sample: main statistics

	2004 wave	2006/07 wave	2011/12 wave	2013 wave	2015 wave	2017 wave	2019/20 wave
	10,261 (9.6%)	13,859 (13.0%)	16,089 (15.1%)	16,397 (15.4%)	16,945 (15.9%)	17,516 (16.4%)	15,433 (14.5%)
age at interview	10,261   59.40 (6.27)	13,580   60.76 (6.49)	14,961   63.72 (6.58)	14,708   65.75 (6.55)	14,447   67.56 (6.51)	13,759   69.31 (6.53)	10,389   71.72 (6.43)
r interview year	10,261   2004.35	13,580   2006.93	14,961   2011.01	14,708   2013.00	14,447   2015.00	13,759   2017.00	10,389   2019.49
rabyear: r birth year	10,261   1944.57	13,859   1945.54	16,089   1946.38	16,397   1946.25	16,945   1946.30	17,516   1946.41	15,433   1946.41
radyear: r death year	2,196   2012.75	2,836   2013.20	3,518   2013.71	3,197   2013.55	3,632   2013.59	4,332   2013.92	4,564   2014.03
dead	10,261   0.00	13,859   0.02	16,089   0.07	16,397   0.10	16,945   0.15	17,516   0.21	15,433   0.33
already has disease at baseline	10,261   0.65	13,859   0.65	16,089   0.67	16,397   0.66	16,945   0.67	17,515   0.68	15,432   0.68
male	10,261   0.46	13,859   0.45	16,089   0.46	16,397   0.45	16,945   0.45	17,516   0.46	15,433   0.47
any disease	10,261   0.65	13,580   0.70	14,961   0.78	14,708   0.81	14,447   0.85	13,754   0.87	10,389   0.89
# diseases	10,261   1.20 (1.24)	13,580   1.41 (1.35)	14,961   1.73 (1.46)	14,708   1.93 (1.54)	14,447   2.17 (1.60)	13,754   2.25 (1.59)	10,389   2.47 (1.65)
age of first onset (observed)	9,459   61.50 (6.67)	12,816   61.26 (6.63)	14,871   61.37 (6.52)	15,108   61.40 (6.55)	15,635   61.41 (6.50)	16,091   61.42 (6.49)	14,144   61.60 (6.43)
age of first onset (g2aging)	5,635   47.48 (12.88)	7,688   47.46 (12.72)	9,224   46.93 (13.20)	9,209   47.19 (13.17)	9,652   47.26 (13.08)	9,947   47.22 (13.09)	8,891   47.09 (13.28)
years first onset to death (observed)	1,907   7.73 (4.49)	2,523   7.38 (4.37)	3,162   6.47 (4.09)	2,863   6.79 (4.23)	3,233   6.61 (4.13)	3,781   6.39 (4.11)	3,987   6.38 (4.11)
months (observed) 1 to 2+ diseases	7,618   33.60 (46.15)	10,356   31.80 (43.96)	11,925   28.22 (41.21)	12,054   29.66 (42.28)	12,551   28.52 (41.41)	12,902   27.69 (41.18)	11,305   26.86 (41.64)
months (observed) 2 to 3+ diseases	5,273   34.55 (44.85)	7,188   33.11 (42.63)	8,219   30.01 (40.44)	8,275   30.76 (40.96)	8,687   29.91 (40.28)	8,917   29.29 (40.20)	7,809   28.84 (40.81)
months (observed) 3 to 4+ diseases	3,130   33.72 (42.72)	4,281   31.86 (40.78)	4,841   28.97 (38.36)	4,863   29.59 (39.04)	5,159   29.40 (39.03)	5,285   28.76 (38.88)	4,644   28.10 (39.11)
months (observed) 4 to 5+ diseases	1,615   30.28 (39.49)	2,193   29.68 (38.66)	2,448   27.84 (36.33)	2,462   28.46 (37.03)	2,627   27.95 (36.82)	2,692   27.61 (36.81)	2,376   27.26 (37.08)
months (observed) 5 to 6+ diseases	651   27.87 (36.75)	867   27.84 (35.31)	956   27.38 (34.29)	973   27.59 (35.21)	1,043   26.72 (34.11)	1,066   26.34 (34.64)	953   26.57 (34.71)
months (observed) 6 to 7+ diseases	213   25.84 (33.80)	276   25.07 (33.19)	289   23.25 (31.16)	307   22.66 (30.52)	325   23.58 (31.92)	329   22.68 (31.59)	291   22.80 (32.18)
months (observed) 7 to 8+ diseases	43   21.30 (29.89)	59   21.88 (28.12)	59   23.64 (29.15)	65   25.11 (28.32)	67   24.36 (27.47)	70   24.43 (27.94)	58   26.43 (29.06)
months (observed) 8 to 9+ diseases	4   19.50 (39.00)	4   19.50 (39.00)	7   11.14 (29.48)	6   13.00 (31.84)	6   13.00 (31.84)	7   11.14 (29.48)	5   0.00 (0.00)
time_tonextdisease2	7,441   77.08 (45.27)	8,401   76.59 (31.59)	7,852   48.80 (27.25)	5,746   43.62 (22.43)	3,853   37.37 (15.43)	1,936   31.30 (1.90)	0   . (.)
r educ							
1.less than upper secondary	4,599   (44.8%)	5,949   (42.9%)	6,399   (39.8%)	6,479   (39.5%)	6,760   (39.9%)	7,036   (40.2%)	6,044   (39.2%)
2.upper secondary or vocational	3,292   (32.1%)	4,829   (34.8%)	6,249   (38.8%)	6,199   (37.8%)	6,482   (38.3%)	6,743   (38.5%)	6,114   (39.6%)
3.tertiary education	2,370   (23.1%)	3,081   (22.2%)	3,441   (21.4%)	3,719   (22.7%)	3,703   (21.9%)	3,737   (21.3%)	3,275   (21.2%)
cohort							
50-59	4,842   (48.9%)	5,659   (42.7%)	4,098   (27.6%)	2,723   (18.6%)	1,533   (10.6%)	721   (5.2%)	206   (2.0%)
60-69	4,653   (47.0%)	6,219   (46.9%)	7,443   (50.2%)	7,340   (50.2%)	7,247   (50.3%)	6,422   (46.8%)	3,827   (36.9%)
70-79	410   (4.1%)	1,389   (10.5%)	3,282   (22.1%)	4,569   (31.2%)	5,281   (36.7%)	5,693   (41.5%)	5,012   (48.3%)
80+	0   (0.0%)	0   (0.0%)	0   (0.0%)	3   (0.0%)	348   (2.4%)	898   (6.5%)	1,333   (12.8%)

Table 2: Full sample: all diseases

	2004 wave	2006/07 wave	2011/12 wave	2013 wave	2015 wave	2017 wave	2019/20 wave
	10,261 (9.6%)	13,859 (13.0%)	16,089 (15.1%)	16,397 (15.4%)	16,945 (15.9%)	17,516 (16.4%)	15,433 (14.5%)
age of first onset (observed) for d_hibp	6,461   63.84 (6.97)	8,799   63.49 (6.88)	10,202   63.38 (6.73)	10,373   63.45 (6.77)	10,810   63.43 (6.71)	11,095   63.41 (6.69)	9,714   63.52 (6.66)
age of first onset (observed) for d_diab	2,397   65.20 (7.25)	3,242   64.99 (7.06)	3,542   64.83 (6.93)	3,713   64.87 (6.97)	3,951   64.89 (6.89)	4,095   64.80 (6.86)	3,631   64.79 (6.85)
age of first onset (observed) for d_heart	3,895   66.67 (7.19)	5,215   66.24 (7.13)	6,006   65.92 (6.96)	6,064   66.11 (6.99)	6,410   66.01 (6.95)	6,638   65.91 (6.92)	5,933   65.92 (6.86)
age of first onset (observed) for d_lung	1,566   65.96 (7.59)	2,198   65.70 (7.47)	2,495   65.24 (7.31)	2,501   65.47 (7.42)	2,609   65.52 (7.30)	2,675   65.44 (7.29)	2,383   65.45 (7.21)
age of first onset (observed) for d_psych	5,792   63.31 (7.97)	7,851   62.99 (7.88)	9,148   62.91 (7.65)	9,203   63.04 (7.73)	9,658   63.05 (7.68)	9,864   63.01 (7.65)	8,576   63.12 (7.58)
age of first onset (observed) for d_osteo	2,153   65.82 (7.67)	2,822   65.52 (7.57)	2,985   65.45 (7.38)	3,182   65.59 (7.42)	3,249   65.58 (7.35)	3,308   65.46 (7.39)	2,732   65.63 (7.34)
age of first onset (observed) for d_cancr	1,813   66.39 (7.27)	2,333   66.27 (7.29)	2,666   65.94 (7.22)	2,739   66.06 (7.19)	2,788   65.99 (7.16)	2,870   65.92 (7.16)	2,633   65.94 (7.10)
age of first onset (observed) for d_strok	1,125   68.15 (7.57)	1,467   67.79 (7.53)	1,680   67.22 (7.39)	1,740   67.43 (7.37)	1,811   67.34 (7.28)	1,886   67.21 (7.23)	1,677   67.32 (7.26)
age of first onset (observed) for d_arthr	4,948   64.81 (7.28)	6,950   64.47 (7.19)	8,037   64.25 (7.10)	7,901   64.44 (7.14)	8,229   64.37 (7.08)	8,362   64.32 (7.08)	7,174   64.51 (6.97)
radiaghibp: R age first diagnosed with high BP	3,080   50.31 (10.98)	4,326   50.23 (10.73)	5,349   49.68 (11.23)	5,325   49.94 (11.18)	5,589   49.98 (11.08)	5,780   49.99 (11.05)	5,224   49.80 (11.30)
radiagdiab: R age first diagnosed with diabetes	1,008   52.39 (10.51)	1,364   52.33 (10.08)	1,583   52.53 (10.39)	1,619   52.51 (10.35)	1,746   52.62 (10.40)	1,844   52.47 (10.41)	1,724   52.52 (10.52)
radiagcancr: R age first diagnosed with cancer	544   53.06 (10.58)	699   53.37 (10.17)	882   53.66 (10.38)	885   53.27 (10.73)	918   53.50 (10.51)	958   53.52 (10.65)	918   53.68 (10.67)
radiaglhung: R age first diagnosed with lung disease	472   43.13 (17.94)	655   44.20 (17.79)	863   43.47 (18.03)	829   42.95 (18.33)	865   43.68 (18.01)	906   43.74 (17.96)	859   43.68 (17.89)
radiagheart: R age first diagnosed with heart problem	958   51.79 (11.72)	1,330   51.32 (11.84)	1,715   50.11 (12.96)	1,656   50.48 (12.84)	1,789   50.42 (12.86)	1,892   50.48 (12.72)	1,807   50.19 (13.13)
radiagstrok: R age first diagnosed with stroke	294   54.05 (9.75)	397   53.39 (10.34)	534   53.38 (10.87)	515   53.55 (10.95)	556   53.41 (10.92)	592   53.60 (10.87)	573   53.81 (10.43)
radiagarthr: R age first diagnosed with arthritis	1,836   46.74 (12.93)	2,600   46.78 (12.87)	3,219   47.08 (12.78)	3,013   47.17 (12.93)	3,224   47.21 (12.80)	3,334   47.19 (12.84)	2,934   47.44 (12.85)
radiaghip: R age first diagnosed with hip fracture	130   45.78 (18.80)	182   44.23 (18.24)	227   43.40 (18.48)	224   44.31 (18.71)	235   43.88 (18.75)	258   43.83 (18.48)	236   44.33 (18.26)
radiagosteo: R age first diagnosed with osteoporosis	655   52.78 (10.35)	879   52.83 (10.28)	782   52.41 (10.55)	823   52.76 (10.44)	860   52.96 (10.34)	888   52.93 (10.50)	724   53.35 (10.37)
radiagpsych: R age first diagnosed with psych disorder	8   38.38 (20.30)	14   40.57 (17.66)	19   41.16 (17.25)	22   42.18 (17.64)	25   43.80 (18.09)	25   43.80 (18.09)	21   44.24 (18.93)
radiagkidney: R age first diagnosed with kidney disease	0   . (.)	0   . (.)	1   65.00 (.)	1   65.00 (.)	9   53.00 (9.62)	9   53.00 (9.62)	9   53.00 (9.62)

Table 3: healthy-at-baseline sample: main statistics

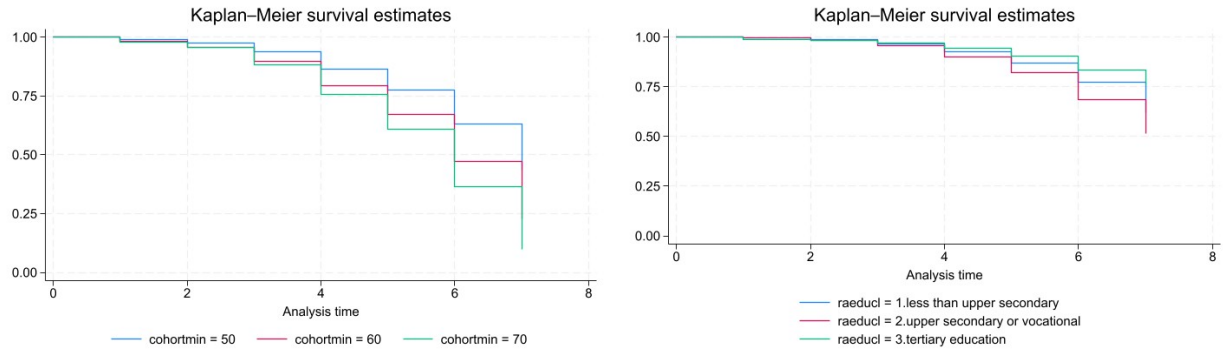
	2004 wave	2006/07 wave	2011/12 wave	2013 wave	2015 wave	2017 wave	2019/20 wave
	3,602 (10.2%)	4,810 (13.6%)	5,250 (14.9%)	5,518 (15.6%)	5,563 (15.7%)	5,711 (16.2%)	4,869 (13.8%)
age at interview	3,602   57.85 (6.24)	4,760   59.19 (6.46)	5,028   62.45 (6.56)	5,140   64.45 (6.52)	5,010   66.23 (6.50)	4,903   67.99 (6.57)	3,790   70.54 (6.38)
r interview year	3,602   2004.31	4,760   2006.91	5,028   2011.01	5,140   2013.00	5,010   2015.00	4,903   2017.00	3,790   2019.48
rubyyear: r birth year	3,602   1946.09	4,810   1947.12	5,250   1947.78	5,518   1947.67	5,563   1947.76	5,711   1947.94	4,869   1947.86
rubyyear: r death year	502   2013.15	626   2013.63	687   2013.75	674   2013.64	758   2013.66	921   2014.15	951   2014.22
dead	3,602   0.00	4,810   0.01	5,250   0.04	5,518   0.07	5,563   0.10	5,711   0.14	4,869   0.22
already has disease at baseline	3,602   0.00	4,810   0.00	5,250   0.00	5,518   0.00	5,563   0.00	5,663   0.00	4,869   0.00
male	3,602   0.52	4,810   0.51	5,250   0.51	5,518   0.50	5,563   0.51	5,711   0.51	4,869   0.52
any disease	3,602   0.00	4,760   0.23	5,028   0.41	5,140   0.54	5,010   0.64	4,852   0.68	3,790   0.75
# diseases	3,602   0.00 (0.00)	4,760   0.30 (0.63)	5,028   0.62 (0.91)	5,140   0.89 (1.06)	5,010   1.14 (1.16)	4,852   1.30 (1.25)	3,790   1.53 (1.31)
age of first onset (observed)	2,800   64.49 (6.96)	3,767   64.08 (6.84)	4,032   63.99 (6.78)	4,229   64.07 (6.77)	4,253   64.05 (6.73)	4,239   64.04 (6.73)	3,580   64.18 (6.72)
age of first onset (g2aging)	119   53.61 (12.53)	147   53.39 (12.28)	152   52.17 (14.06)	171   52.77 (13.62)	160   52.41 (13.61)	159   52.47 (13.83)	139   52.14 (14.14)
years first onset to death (observed)	288   5.73 (3.80)	383   5.34 (3.56)	391   4.80 (3.46)	397   4.98 (3.55)	429   4.81 (3.43)	465   4.76 (3.41)	473   4.83 (3.44)
months (observed) 1 to 2+ diseases	1,785   37.77 (40.59)	2,385   34.11 (38.27)	2,494   32.82 (36.93)	2,600   32.79 (37.01)	2,644   31.72 (35.95)	2,639   31.60 (36.00)	2,210   33.01 (38.03)
months (observed) 2 to 3+ diseases	936   29.96 (36.01)	1,224   28.98 (33.99)	1,244   27.80 (33.35)	1,304   27.82 (33.38)	1,332   26.87 (32.56)	1,333   26.92 (32.78)	1,119   28.36 (34.32)
months (observed) 3 to 4+ diseases	383   23.98 (31.73)	484   22.37 (29.79)	468   21.46 (29.03)	508   22.14 (29.69)	526   21.62 (29.03)	522   21.61 (29.27)	448   21.10 (29.10)
months (observed) 4 to 5+ diseases	136   22.33 (29.80)	173   19.55 (28.26)	175   20.28 (28.81)	179   20.35 (28.93)	182   18.64 (27.14)	186   19.76 (28.52)	155   20.97 (29.72)
months (observed) 5 to 6+ diseases	32   15.09 (26.34)	40   14.43 (24.12)	40   14.03 (24.29)	43   14.16 (23.61)	45   13.53 (23.25)	46   13.24 (23.08)	38   13.63 (24.34)
months (observed) 6 to 7+ diseases	8   22.38 (25.52)	8   22.38 (25.52)	7   25.57 (25.78)	9   19.89 (25.01)	9   19.89 (25.01)	8   15.38 (22.48)	7   22.00 (27.54)
months (observed) 7 to 8+ diseases	1   32.00 (.)	2   32.50 (0.71)	1   32.00 (.)	2   32.50 (0.71)	2   32.50 (0.71)	2   32.50 (0.71)	2   32.50 (0.71)
months (observed) 8 to 9+ diseases	0   . (.)	0   . (.)	0   . (.)	0   . (.)	0   . (.)	0   . (.)	0   . (.)
time_tonextdisease2	2,800   76.94 (44.95)	3,388   77.12 (32.15)	2,969   50.36 (27.70)	2,302   43.73 (22.46)	1,523   36.86 (15.38)	761   31.24 (19.7)	0   . (.)
r educ							
1.less than upper secondary	1,322   (36.7%)	1,694   (35.2%)	1,735   (33.0%)	1,828   (33.1%)	1,841   (33.1%)	1,911   (33.5%)	1,578   (32.4%)
2.upper secondary or vocational	1,237   (34.3%)	1,779   (37.0%)	2,076   (39.5%)	2,132   (38.6%)	2,201   (39.6%)	2,268   (39.7%)	1,968   (40.4%)
3.tertiary education	1,043   (29.0%)	1,337   (27.8%)	1,439   (27.4%)	1,558   (28.2%)	1,521   (27.3%)	1,532   (26.8%)	1,323   (27.2%)
cohort							
50-59	1,991   (58.5%)	2,392   (52.1%)	1,722   (34.7%)	1,220   (23.9%)	711   (14.3%)	341   (7.0%)	102   (2.7%)
60-69	1,326   (39.0%)	1,887   (41.1%)	2,394   (48.3%)	2,653   (52.0%)	2,722   (54.6%)	2,594   (53.1%)	1,662   (43.9%)
70-79	86   (2.5%)	308   (6.7%)	844   (17.0%)	1,224   (24.0%)	1,466   (29.4%)	1,723   (35.3%)	1,645   (43.5%)
80+	0   (0.0%)	0   (0.0%)	0   (0.0%)	1   (0.0%)	83   (1.7%)	224   (4.6%)	373   (9.9%)

Table 4: healthy-at-baseline sample: all diseases

	2004 wave		2006/07 wave		2011/12 wave		2013 wave		2015 wave		2017 wave		2019/20 wave	
	3.602 (10.2%)		4.810 (13.6%)		5.250 (14.9%)		5.518 (15.6%)		5.563 (15.7%)		5.711 (16.2%)		4.869 (13.8%)	
age of first onset (observed) for d_hibp	1,526	66.28 (6.85)	2,004	65.79 (6.83)	2,094	65.61 (6.76)	2,218	65.73 (6.76)	2,256	65.66 (6.75)	2,244	65.72 (6.73)	1,870	65.80 (6.79)
age of first onset (observed) for d_diab	421	67.48 (6.93)	536	66.91 (6.90)	531	66.68 (6.73)	599	66.83 (6.76)	611	66.71 (6.73)	610	66.82 (6.69)	509	66.75 (6.86)
age of first onset (observed) for d_heart	795	68.88 (6.59)	1,006	68.23 (6.70)	1,041	68.05 (6.63)	1,103	68.22 (6.67)	1,114	68.02 (6.62)	1,114	67.99 (6.65)	976	68.21 (6.66)
age of first onset (observed) for d_lung	286	67.57 (7.18)	384	67.21 (7.04)	397	66.82 (7.03)	411	67.08 (7.13)	416	67.13 (7.10)	424	66.96 (7.10)	355	66.90 (6.97)
age of first onset (observed) for d_psych	1,279	65.18 (7.82)	1,745	64.69 (7.62)	1,879	64.56 (7.53)	1,946	64.65 (7.55)	1,995	64.67 (7.54)	1,985	64.67 (7.55)	1,647	64.91 (7.53)
age of first onset (observed) for d_osteo	439	67.38 (7.64)	570	66.97 (7.45)	564	66.97 (7.26)	616	66.93 (7.34)	602	66.88 (7.29)	596	66.86 (7.27)	478	67.19 (7.11)
age of first onset (observed) for d_cancer	458	67.98 (6.71)	575	67.80 (6.74)	605	67.91 (6.74)	634	67.71 (6.74)	640	67.71 (6.71)	645	67.76 (6.70)	573	67.89 (6.62)
age of first onset (observed) for d_strok	205	70.71 (6.58)	252	69.58 (7.00)	255	69.13 (6.84)	277	69.32 (6.91)	279	69.04 (6.84)	287	69.09 (6.88)	243	69.59 (6.70)
age of first onset (observed) for d_arthr	1,191	66.68 (7.05)	1,657	66.05 (6.94)	1,759	65.90 (6.94)	1,782	65.96 (6.92)	1,801	65.98 (6.86)	1,793	65.90 (6.89)	1,502	66.11 (6.86)
radiaghbp: R age first diagnosed with high BP	31	58.94 (9.08)	37	58.70 (10.97)	40	57.75 (10.22)	44	58.75 (10.26)	37	57.81 (10.08)	37	58.59 (10.27)	31	59.71 (8.51)
radiagdiab: R age first diagnosed with diabetes	8	65.75 (6.20)	10	65.60 (5.97)	10	63.40 (8.71)	14	63.36 (7.53)	13	62.54 (7.16)	13	62.54 (7.16)	11	62.45 (8.23)
radiagcancer: R age first diagnosed with cancer	9	62.33 (5.24)	11	63.73 (5.64)	14	63.50 (6.04)	15	63.27 (6.13)	15	63.27 (6.13)	15	63.27 (6.13)	15	62.27 (6.01)
radiaglunr: R age first diagnosed with lung disease	5	44.80 (21.56)	7	48.86 (19.62)	6	48.67 (21.48)	7	48.86 (19.62)	7	48.86 (19.62)	6	48.67 (21.48)	5	43.20 (20.61)
radiagheart: R age first diagnosed with heart problem	7	53.57 (23.44)	7	54.86 (20.15)	9	38.44 (30.39)	9	38.00 (30.10)	10	40.00 (29.07)	10	40.00 (29.07)	7	29.71 (29.06)
radiagstrok: R age first diagnosed with stroke	4	67.25 (5.56)	5	66.40 (5.18)	4	67.75 (4.86)	5	66.40 (5.18)	5	66.40 (5.18)	5	66.40 (5.18)	2	63.00 (2.83)
radiagarthr: R age first diagnosed with arthritis	14	53.64 (8.60)	20	55.15 (7.74)	30	56.07 (8.93)	31	55.97 (8.82)	30	55.67 (8.81)	31	55.71 (8.82)	29	55.76 (9.03)
radiaghip: R age first diagnosed with hip fracture	1	73.00 (.)	1	73.00 (.)	1	73.00 (.)	1	73.00 (.)	1	73.00 (.)	1	73.00 (.)	1	73.00 (.)
radiagosteo: R age first diagnosed with osteoporosis	54	50.07 (10.86)	70	50.57 (9.32)	63	50.05 (10.43)	72	50.47 (10.06)	68	50.57 (10.31)	68	50.19 (10.38)	57	50.47 (10.84)
radiagspsych: R age first diagnosed with psych disorder	2	25.00 (7.07)	3	29.33 (27.01)	5	32.60 (23.19)	5	32.60 (23.19)	5	34.60 (23.34)	5	34.60 (23.34)	6	33.83 (20.96)
radiagkidney: R age first diagnosed with kidney disease	0	. (.)	0	. (.)	0	. (.)	0	. (.)	0	. (.)	0	. (.)	0	. (.)

**3 THE PART BELOW CONTAINS PRELIMINARY RESULTS. IT IS SYNCED TO GITHUB AND CAN BE DISREGARDED IN THE TEAM UNTIL ADDED ABOVE. — For the team to edit/add notes to the part above, use “7-graphsAndTables.tex”**

Figure 7: Survival curves



Notes: Analysis time is in waves

Table 5: Poisson Regression: Disease Count on Time Since First Observed, age at baseline and gender, without and with FE

	(1) N diseases	(2) N diseases
N diseases		
time since first observed	0.0788*** (0.000905)	0.0739*** (0.000929)
time since first observed $\times$ time since first observed	-0.00162*** (0.0000636)	-0.00114*** (0.0000641)
age when first observed	0.0381*** (0.000609)	
male	-0.162*** (0.00715)	
/		
lnalpha	-0.764*** (0.0552)	
N	162371	131234
fixedEffects		YES

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Notes: Time since first observed is almost equivalent to “age” in this context. Time since first observed is based on interview time (in years) since baseline, hence this is shown.

Table 6: Poisson Regression: Disease Count on age and gender, without and with FE

	(1)	(2)
	N diseases	N diseases
N diseases		
age at interview	0.0783*** (0.00403)	0.0968*** (0.00458)
age at interview $\times$ age at interview	-0.000206*** (0.0000300)	-0.000284*** (0.0000340)
male	-0.170*** (0.00726)	
/		
lnalpha	-0.746*** (0.0542)	
N	162371	131234
fixedEffects		YES

Standard errors in parentheses  
\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$