## Figures and Tables

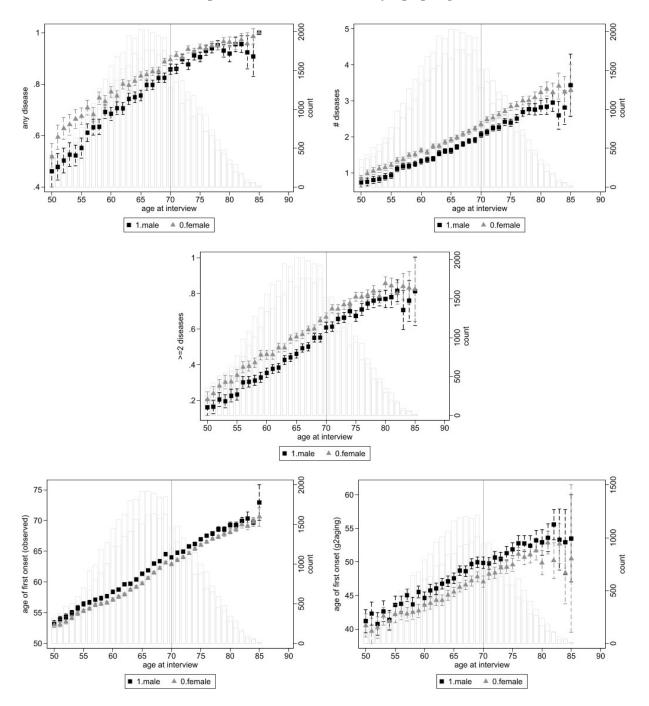
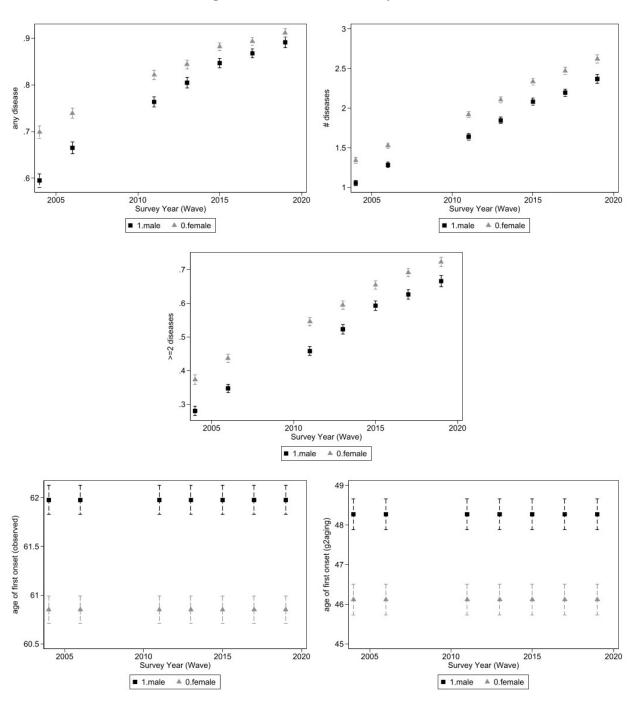


Figure 1: Outcome variable by age group

Notes:...

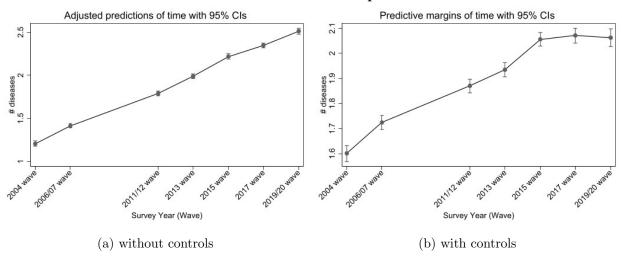
Figure 2: Outcome variable by wave



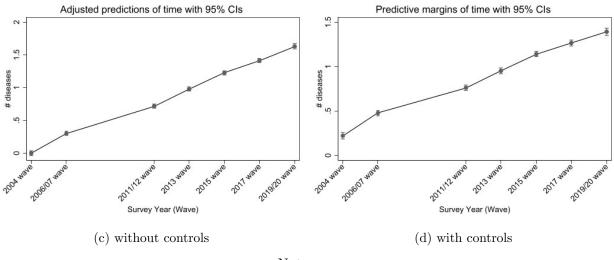
Notes:...

Figure 3: Adjusted predictions with and without controls

## Panel A: Full Sample



Panel B: baselineHealthy sample



Notes:...

Table 1: Full sample: main statistics

	Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	Wave 7		
	9,746 (10.7%)	13,238 (14.6%)	13,542 (14.9%)	13,349 (14.7%)	13,890 (15.3%)	14,390 (15.8%)		
age at interview	9,746 (10.7%)	12,959 60.77 (6.49)	12,414 64.42 (6.45)	11,660 66.49 (6.43)	11,392 68.22 (6.43)	10,633 69.97 (6.47)	7,	
r interview year	9,746 39.48 (0.28) 9,746 2004.31	12,959 00.77 (0.49)	12,414 04.42 (0.45)	11,660 2013.00	11,392 08.22 (0.43)	10,633 2017.00	٠,	
·	,	,	,	,	,	,		
rabyear: r birth year	9,746 1944.45	13,238 1945.45	13,542 1945.71	13,349 1945.51	13,890 1945.60	14,390 1945.75		
radyear: r death year	2,194 2012.74	2,832 2013.19	3,479 2013.64	3,155 2013.46	3,589 2013.51	4,289 2013.85		
dead	9,746 0.00	13,238 0.02	13,542 0.08	13,349 0.13	13,890 0.18	14,390 0.26		
already has disease at baseline	9,746 0.65	13,238 0.65	13,542 0.67	13,349 0.65	13,890 0.66	14,389 0.67		
male	9,746 0.46	$13,\!2380.46$	$13,\!5420.47$	$13,349\ 0.47$	$13,890\ 0.47$	14,390 0.48		
any disease	$9,746\ 0.65$	$12,959\ 0.70$	$12,414\ 0.79$	$11,660\ 0.82$	11,392 0.86	10,629 0.88		
# diseases	$9,746 \ 1.20 \ (1.24)$	$12,959 \ 1.41 \ (1.35)$	$12,414\ 1.79\ (1.48)$	$11,660 \ 1.99 \ (1.55)$	$11,392\ 2.22\ (1.60)$	$10,629\ 2.34\ (1.61)$	7	
age of first onset (observed)	$8,993 \ 61.57 \ (6.68)$	$12,259 \ 61.31 \ (6.64)$	$12,538 \ 61.39 \ (6.58)$	$12,327 \ 61.45 \ (6.62)$	$12,844 \ 61.46 \ (6.56)$	$13,234\ 61.48\ (6.54)$	11,	
age of first onset (g2aging)	5,378 47.42 (12.97)	7,381 47.40 (12.76)	7,713 47.13 (13.05)	7,452 47.38 (13.06)	7,888 47.48 (12.93)	8,148 47.41 (12.96)	7,29	
years first onset to death (observed)	$1,905\ 7.73\ (4.49)$	$2,519\ 7.38\ (4.37)$	$3,123\ 6.43\ (4.10)$	$2,821 \ 6.75 \ (4.24)$	$3,190 \ 6.57 \ (4.14)$	3,738 6.36 (4.12)	3	
months (observed) 1 to 2+ diseases	7,261 33.35 (45.94)	9,919 31.74 (43.88)	10,090 30.11 (42.83)	9,875 31.62 (43.81)	10,365 30.24 (42.85)	10,661 29.06 (42.43)	9,33	
months (observed) 2 to 3+ diseases	5,040 34.77 (44.85)	6,897 33.30 (42.72)	6,992 31.55 (41.76)	6,817 32.61 (42.35)	7,222 31.50 (41.58)	7,417 30.65 (41.36)	6,48	
months (observed) 3 to 4+ diseases	2,994 33.80 (42.56)	4,116 32.01 (40.84)	4,146 29.96 (39.44)	4,028 30.76 (40.10)	4,325 30.37 (39.97)	4,430 29.61 (39.77)	3,88	
months (observed) 4 to 5+ diseases	1,534 30.18 (39.43)	2,105 29.58 (38.45)	2,100 28.12 (37.22)	2,039 28.77 (37.96)	2,196 28.16 (37.62)	2,254 27.68 (37.49)	1,9	
months (observed) 5 to 6+ diseases	622 27.55 (36.35)	833 27.81 (35.44)	822 27.03 (34.16)	807 27.04 (35.16)	876 26.26 (34.28)	896 25.65 (34.52)	8	
months (observed) 6 to 7+ diseases	202 25.58 (32.33)	264 24.72 (32.03)	255 24.28 (31.81)	263 23.56 (30.79)	279 24.17 (31.39)	282 23.20 (31.05)	2	
months (observed) 7 to 8+ diseases	38 22.00 (30.81)	55 22.98 (28.65)	51 22.14 (28.71)	54 24.31 (27.99)	54 23.81 (27.24)	57 23.93 (27.84)		
months (observed) 8 to 9+ diseases	4 19.50 (39.00)	4 19.50 (39.00)	6 13.00 (31.84)	5 15.60 (34.88)	5 15.60 (34.88)	6 13.00 (31.84)	Ţ	
r educ	- ( ,	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	( , ,	( ,	( , ,	( ,		
1.less than upper secondary	4,370 (44.8%)	5,711 (43.1%)	5,813 (42.9%)	5,701 (42.7%)	5,976 (43.0%)	$6,223 \ (43.2\%)$		
2.upper secondary or vocational	3,136 (32.2%)	4,609 (34.8%)	4,860 (35.9%)	4,646 (34.8%)	4,924 (35.4%)	5,162 (35.9%)		
3.tertiary education	$2,240 \ (23.0\%)$	2,918 (22.0%)	2,869 (21.2%)	3,002 (22.5%)	2,990 (21.5%)	3,005 (20.9%)		
cohort	-, (,	-, (,-)	-,	0,00- (,0)	_, ~ ~ ( ~ )	0,000 (-0)		
50-59	4,537 (48.2%)	5,401 (42.7%)	3,005 (24.4%)	1,801 (15.5%)	920 (8.1%)	348 (3.3%)		
60-69	4,481 (47.6%)	5,935 (46.9%)	6,186 (50.2%)	5,772 (49.7%)	5,637 (49.6%)	4,838 (45.6%)	ļ	
70-79	396 (4.2%)	1,327 (10.5%)	3,133 (25.4%)	4,038 (34.8%)	4,474 (39.3%)	4,577 (43.1%)	ŀ	
80+	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (0.0%)	339 (3.0%)	856 (8.1%)		
Notes: The sample used is (everdead==1 inw_tot>=5), where hacohorts 1 and 2 are included								
	r							

Table 2: Full sample: all diseases

	Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	Wa
	$9,746 \ (10.7\%)$	$13,238 \ (14.6\%)$	$13,542\ (14.9\%)$	$13,349\ (14.7\%)$	$13,890\ (15.3\%)$	14,390
age of first onset (observed) for d_hibp	6,141 63.91 (6.98)	8,420 63.54 (6.89)	8,515 63.52 (6.82)	8,373 63.62 (6.87)	8,804 63.59 (6.78)	9,045 6
age of first onset (observed) for d_diab	$2,231\ 65.36\ (7.20)$	$3,040 \ 65.12 \ (7.05)$	$2,987 \ 65.02 \ (7.01)$	2,979 65.16 (7.04)	$3,220\ 65.13\ (6.94)$	3,342 6
age of first onset (observed) for d_heart	$3,697 \ 66.76 \ (7.18)$	4,976 66.30 (7.14)	$5,019\ 66.17\ (7.05)$	4,876 $66.45$ $(7.08)$	5,222 66.29 (7.03)	5,420 6
age of first onset (observed) for d_lung	$1,492\ 65.91\ (7.59)$	$2,113\ 65.68\ (7.46)$	$2,179\ 65.43\ (7.33)$	$2,109\ 65.66\ (7.44)$	$2,214\ 65.69\ (7.30)$	$2,\!273\ 6$
age of first onset (observed) for d_psych	5,499 63.38 (7.98)	$7,505 \ 63.05 \ (7.89)$	7,667 63.03 (7.76)	7,439 63.19 (7.86)	7,888 63.19 (7.80)	8,050 6
age of first onset (observed) for d_osteo	$2,025\ 65.87\ (7.68)$	$2,673\ 65.56\ (7.58)$	2,599 65.48 (7.50)	2,671 65.61 (7.56)	2,739 65.61 (7.46)	2,779 6
age of first onset (observed) for d_cancr	1,758 66.37 (7.28)	$2,266\ 66.24\ (7.31)$	2,346 66.01 (7.31)	2,365 66.11 (7.30)	2,415 66.04 (7.26)	$2,\!487\ 6$
age of first onset (observed) for d_strok	$1,069 \ 68.22 \ (7.65)$	1,401 67.87 (7.58)	$1,434\ 67.45\ (7.46)$	1,433 67.76 (7.48)	1,504 67.64 (7.37)	$1,573\ 6$
age of first onset (observed) for d_arthr	$4,775 \ 64.82 \ (7.29)$	$6,734\ 64.51\ (7.20)$	$6,869 \ 64.41 \ (7.17)$	$6,603 \ 64.61 \ (7.22)$	$6,904\ 64.52\ (7.15)$	7,013 6
radiaghibp: R age first diagnosed with high BP	2,926 50.26 (11.07)	4,145 50.18 (10.77)	4,337 49.83 (11.09)	4,164 50.09 (11.05)	4,424 50.16 (10.92)	4,59350
radiagdiab: R age first diagnosed with diabetes	$939\ 52.61\ (10.52)$	$1,276\ 52.38\ (10.07)$	1,318 52.38 (10.46)	1,275 52.41 (10.47)	1,405 $52.57$ $(10.42)$	$1,492\ 52$
radiagcancr: R age first diagnosed with cancer	532 53.08 (10.64)	682 53.31 (10.17)	756 53.77 (10.12)	747 53.27 (10.55)	780 53.55 (10.29)	$818 \ 53$
radiaglung: R age first diagnosed with lung disease	$466\ 43.21\ (17.88)$	$644\ 44.32\ (17.69)$	$732\ 43.96\ (17.98)$	691 43.56 (18.27)	$726\ 44.31\ (17.92)$	$766 \ 44$
radiagheart: R age first diagnosed with heart problem	918 51.75 (11.79)	1,277 51.33 (11.86)	$1,392\ 50.82\ (12.45)$	1,287 51.26 (12.29)	1,425 51.13 (12.36)	1,520 51
radiagstrok: R age first diagnosed with stroke	$287\ 54.02\ (9.85)$	$390\ 53.48\ (10.29)$	$457\ 53.85\ (10.50)$	429 54.07 (10.66)	$471\ 53.87\ (10.65)$	506 54
radiagarthr: R age first diagnosed with arthritis	$1,776\ 46.72\ (13.00)$	2,525 $46.81$ $(12.89)$	2,719 47.07 (12.74)	2,472 47.15 (12.93)	2,671 47.24 (12.76)	$2,772\ 47$
radiaghip: R age first diagnosed with hip fracture	$124\ 46.29\ (18.65)$	176 44.47 (18.26)	193 44.04 (18.07)	186 45.32 (18.24)	196 44.86 (18.26)	$218\ 44$
radiagosteo: R age first diagnosed with osteoporosis	$615\ 52.71\ (10.53)$	835 52.80 (10.44)	775 52.45 (10.59)	778 52.70 (10.61)	812 52.95 (10.51)	$838\ 52$
radiagpsych: R age first diagnosed with psych disorder	7 39.57 (21.62)	13 41.38 (18.10)	19 41.16 (17.25)	21 42.76 (17.86)	24 44.38 (18.24)	$24\ 44$
radiagkidney: R age first diagnosed with kidney disease	0.(.)	0.(.)	1 65.00 (.)	1 65.00 (.)	9 53.00 (9.62)	9 5

Notes: The sample used is (everdead==1|inw\_tot>=5), where hacohorts 1 and 2 are included

Table 3: baselineHealthy sample: main statistics

	Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	Wave 7	V
	$3,427\ (11.2\%)$	$4,597 \ (15.0\%)$	$4,525 \ (14.7\%)$	$4,617 \ (15.0\%)$	$4,655 \ (15.2\%)$	$4,787 \ (15.6\%)$	4,09
age at interview	3,427 57.92 (6.24)	4,547 59.20 (6.46)	4,303 63.05 (6.41)	4,239 65.08 (6.37)	4,102 66.83 (6.39)	3,979 68.55 (6.50)	3,016
r interview year	$3,427\ 2004.28$	$4,547\ 2006.84$	4,303 2011.04	4,239 2013.00	4,102 2015.00	3,979 2017.00	3
rabyear: r birth year	$3,427\ 1945.98$	4,597 1947.04	4,525 1947.18	4,617 1947.02	4,655 1947.14	4,787 1947.36	4
radyear: r death year	$501\ 2013.14$	$625\ 2013.62$	$682\ 2013.70$	$669\ 2013.59$	$752\ 2013.61$	915 2014.11	
dead	3,427 0.00	$4,597 \ 0.01$	$4,525\ 0.05$	4,617 0.08	$4,655\ 0.12$	$4,787 \ 0.17$	
already has disease at baseline	3,427 0.00	$4,597 \ 0.00$	$4,525\ 0.00$	4,617 0.00	$4,655\ 0.00$	$4,739\ 0.00$	
male	$3,427\ 0.53$	$4,597 \ 0.52$	$4,525 \ 0.52$	$4,617\ 0.52$	$4,655\ 0.52$	$4,787 \ 0.53$	
any disease	3,427 0.00	$4,547 \ 0.22$	$4,303\ 0.47$	$4,239\ 0.58$	$4{,}102\ 0.67$	$3,929\ 0.72$	
# diseases	$3,427 \ 0.00 \ (0.00)$	$4,547 \ 0.30 \ (0.63)$	$4,303 \ 0.72 \ (0.94)$	$4,239\ 0.97\ (1.08)$	$4,102\ 1.22\ (1.19)$	3,929 1.40 (1.28)	3,01
age of first onset (observed)	$2,674\ 64.51\ (6.98)$	3,618 64.11 (6.84)	$3,521 \ 64.10 \ (6.82)$	$3,595 \ 64.20 \ (6.82)$	$3,609 \ 64.16 \ (6.78)$	$3,584\ 64.16\ (6.77)$	3,024
age of first onset (g2aging)	$114\ 53.61\ (12.65)$	$139\ 53.24\ (12.42)$	$149\ 52.03\ (14.13)$	161 52.59 (13.86)	$150\ 52.19\ (13.86)$	149 52.26 (14.09)	$135\ 5$
years first onset to death (observed)	$287\ 5.72\ (3.80)$	$382\ 5.34\ (3.57)$	$386\ 4.79\ (3.48)$	$392\ 4.97\ (3.56)$	$423\ 4.79\ (3.45)$	$459\ 4.75\ (3.42)$	46
months (observed) 1 to 2+ diseases	1,712 38.17 (40.78)	2,294 34.41 (38.44)	$2,228 \ 33.82 \ (37.88)$	2,266 33.88 (38.10)	$2,305 \ 32.73 \ (36.93)$	$2,291\ 32.55\ (36.94)$	$1,921\ 3$
months (observed) 2 to 3+ diseases	$905 \ 30.26 \ (36.32)$	1,188 29.10 (34.23)	$1,135\ 28.77\ (34.03)$	1,169 28.82 (34.14)	1,193 27.80 (33.32)	1,190 27.85 (33.57)	$997\ 2$
months (observed) 3 to 4+ diseases	$373\ 24.10\ (31.79)$	$474\ 22.44\ (29.91)$	$435\ 22.39\ (29.58)$	$464\ 23.12\ (30.27)$	$482\ 22.62\ (29.56)$	$477\ 22.56\ (29.83)$	$409\ 2$
months (observed) 4 to 5+ diseases	$131\ 22.37\ (30.09)$	$171\ 19.78\ (28.35)$	$163\ 20.50\ (28.91)$	$163\ 20.56\ (29.16)$	$167 \ 18.57 \ (27.16)$	170 19.91 (28.71)	$141\ 2$
months (observed) 5 to 6+ diseases	$31\ 15.58\ (26.62)$	$39\ 14.21\ (24.39)$	$36\ 14.69\ (25.12)$	$37\ 14.97\ (24.83)$	39 14.21 (24.39)	40 13.85 (24.18)	$32\ 1$
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 2
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
months (observed) 8 to 9+ diseases	0. (.)	0.(.)	0.(.)	0. (.)	0.(.)	0. (.)	
r educ							
1.less than upper secondary	$1,260 \ (36.8\%)$	$1,625 \ (35.3\%)$	$1,593 \ (35.2\%)$	1,634 (35.4%)	$1,644 \ (35.3\%)$	1,707 (35.7%)	1
2.upper secondary or vocational	1,177 (34.3%)	$1,695 \ (36.9\%)$	1,693 (37.4%)	$1,680 \ (36.4\%)$	1,747 (37.5%)	1,809 (37.8%)	1
3.tertiary education	990~(28.9%)	$1,277\ (27.8\%)$	$1,239\ (27.4\%)$	$1,303\ (28.2\%)$	$1,264\ (27.2\%)$	$1,271\ (26.6\%)$	1
cohort							
50-59	1,877 (57.9%)	$2,291 \ (52.2\%)$	$1,330 \ (31.3\%)$	$863\ (20.5\%)$	$458 \ (11.2\%)$	190 (4.8%)	
60-69	$1,280 \ (39.5\%)$	1,804 (41.1%)	2,109 (49.6%)	$2,233 \ (53.0\%)$	$2,252 \ (55.1\%)$	$2,093 \ (52.8\%)$	1
70-79	85~(2.6%)	290~(6.6%)	$816\ (19.2\%)$	$1,114\ (26.5\%)$	$1,293 \ (31.7\%)$	1,470 (37.1%)	1
80+	$0\ (0.0\%)$	$0\ (0.0\%)$	0 (0.0%)	1 (0.0%)	82 (2.0%)	212 (5.3%)	

Notes: The sample used is & (d\_anyatfirstobs==0), where hacohorts 1 and 2 are included

Table 4: baselineHealthy sample: main statistics

	Wave 1	Wave 2	Wave 4	Wave 5	Wave 6	Wave 7
	$3,427 \ (11.2\%)$	$4,597 \ (15.0\%)$	$4,525 \ (14.7\%)$	$4,617 \ (15.0\%)$	$4,655 \ (15.2\%)$	4,787 (15.6%
age of first onset (observed) for d_hibp	1,457 66.29 (6.86)	1,932 65.80 (6.83)	1,839 65.75 (6.77)	1,901 65.89 (6.79)	1,935 65.80 (6.78)	1,916 65.87 (6
age of first onset (observed) for d_diab	393 67.51 (7.00)	$504\ 66.95\ (6.92)$	$470\ 66.92\ (6.78)$	$504\ 67.07\ (6.85)$	517 66.94 (6.82)	514 67.05 (6
age of first onset (observed) for d_heart	$764\ 68.91\ (6.62)$	970 68.23 (6.75)	$919 \ 68.26 \ (6.59)$	946 68.45 (6.67)	956 68.21 (6.64)	953 68.18 (6
age of first onset (observed) for d_lung	$272\ 67.65\ (7.15)$	$366\ 67.23\ (7.02)$	$365\ 67.01\ (6.99)$	$363\ 67.28\ (7.05)$	$366\ 67.36\ (7.02)$	374 67.16 (7
age of first onset (observed) for d_psych	$1,233 \ 65.19 \ (7.82)$	1,686 64.73 (7.62)	1,650 $64.68$ $(7.55)$	1,669 64.77 (7.58)	1,713 64.80 (7.56)	1,699 64.81 (7
age of first onset (observed) for d_osteo	$416\ 67.51\ (7.61)$	$539\ 67.12\ (7.49)$	$517\ 67.03\ (7.37)$	$546\ 67.06\ (7.45)$	$533\ 67.01\ (7.39)$	523 67.01 (7
age of first onset (observed) for d_cancr	$448 \ 68.02 \ (6.73)$	$562\ 67.87\ (6.76)$	$553\ 67.91\ (6.80)$	572 67.74 (6.81)	$575\ 67.75\ (6.79)$	580 67.81 (6
age of first onset (observed) for d_strok	198 70.74 (6.62)	245 69.67 (7.00)	229 69.34 (6.86)	244 69.71 (6.98)	246 69.39 (6.92)	253 69.39 (6
age of first onset (observed) for d_arthr	$1,150 \ 66.73 \ (7.05)$	1,611 66.11 (6.96)	$1,581 \ 66.14 \ (6.97)$	1,582 66.19 (6.99)	$1,595 \ 66.20 \ (6.89)$	1,580 66.14 (6
radiaghibp: R age first diagnosed with high BP	$30\ 58.73\ (9.17)$	36 58.53 (11.07)	39 57.72 (10.35)	42 58.60 (10.46)	35 57.57 (10.29)	35 58.40 (10
radiagdiab: R age first diagnosed with diabetes	$7\ 66.00\ (6.66)$	8 66.50 (6.32)	10 63.40 (8.71)	12 63.58 (8.12)	11 62.64 (7.79)	11 62.64 (7
radiagcancr: R age first diagnosed with cancer	962.33(5.24)	$10\ 63.00\ (5.37)$	$13\ 62.92\ (5.87)$	14 62.71 (5.97)	$14\ 62.71\ (5.97)$	14 62.71 (5
radiaglung: R age first diagnosed with lung disease	$5\ 44.80\ (21.56)$	5 44.80 (21.56)	5 44.80 (21.56)	5 44.80 (21.56)	5 44.80 (21.56)	$4\ 43.50\ (24$
radiagheart: R age first diagnosed with heart problem	753.57(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
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
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
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
radiagosteo: R age first diagnosed with osteoporosis	51 50.27 (11.09)	67 50.75 (9.44)	$62\ 50.05\ (10.52)$	68 50.65 (10.28)	64 50.77 (10.55)	64 50.36 (10
radiagpsych: 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
radiagkidney: R age first diagnosed with kidney disease	0 . (.)	0.(.)	0.(.)	0.(.)	0. (.)	0

Notes: The sample used is & (d\_anyatfirstobs==0), where hacohorts 1 and 2 are included

## 0.1 Log files of output

SHARE-1-harmon SHARE-2-harmon-Part5