

## Supplement 1. Selection of variables by LASSO regression

Detailed descriptions for specific SAHRE variables can be found at:

<https://g2aging.org/?section=survey&surveyid=6&display=flowchart> (under Survey modules).

Variables selected by LASSO: AT

Num	Variable	Positive	Negative
1	bmi	100	0
2	gender	0	62
3	euro3	0	30
4	eurodcat	0	21
5	casp	0	18
6	euro2	13	0
7	euro5	9	0
8	ph006d7	0	9
9	br010_	7	0
10	br016_	7	0
11	maxgrip	7	0
12	ph004_	0	6
13	ph006d6	0	5
14	euro4	0	4
15	ph006d13	0	4
16	br017_	0	3
17	euro8	0	3
18	ph006d2	3	0
19	euro1	0	2
20	euro7	0	2
21	gali	0	2
22	ph006d1	2	0
23	ph006d4	0	2
24	adl2	1	0
25	bmi2	1	0
26	br001_	0	1
27	br015_	1	0
28	euro10	1	0

---

Num	Variable	Positive	Negative
29	euro9	0	1
30	mobil3	0	1
31	numeracy	1	0
32	orienti	1	0
33	ph006d10	1	0
34	ph006d12	0	1
35	ph006d3	1	0
36	ph006d9	0	1
37	phactiv	1	0
38	sphus	0	1
39	sphus2	0	1

---

Variables selected by LASSO: BE

Num	Variable	Positive	Negative
1	bmi	99	0
2	bmi2	99	0
3	sphus2	7	0
4	br010_	3	0
5	euro9	3	0
6	ph006d8	3	0
7	br001_	0	1
8	br017_	1	0
9	ph006d12	0	1
10	ph006d9	1	0

Variables selected by LASSO: CH

Num	Variable	Positive	Negative
1	bmi2	99	0
2	bmi	39	0
3	euro12	0	27
4	ph006d2	25	0
5	euro2	0	20
6	mobilit3	13	0
7	ph004_	0	12
8	ph006d9	0	12
9	sphus	12	0
10	ph006d13	0	10
11	sphus2	10	0
12	ph006d3	9	0
13	euro4	0	5
14	iadl2	0	5
15	br015_	4	0
16	ph006d4	0	4
17	euro7	3	0
18	euro8	0	3
19	phactiv	3	0
20	br001_	0	2
21	euro5	0	2
22	br010_	1	0
23	casp	0	1
24	euro6	0	1
25	numeracy	1	0
26	ph006d1	0	1
27	ph006d8	1	0

Variables selected by LASSO: DE

Num	Variable	Positive	Negative
1	bmi2	100	0
2	bmi	61	0
3	br001_	0	9
4	gali	7	0
5	euro9	0	6
6	ph006d2	6	0
7	age	4	0
8	mobilit3	0	4
9	orienti	0	4
10	ph006d6	0	4
11	casp	0	3
12	euro8	0	3
13	euro10	2	0
14	gender	0	2
15	ph004_	0	2
16	br010_	0	1
17	br017_	1	0
18	euro3	0	1
19	ph006d10	0	1
20	ph006d12	1	0
21	ph006d14	0	1

Variables selected by LASSO: DK

Num	Variable	Positive	Negative
1	bmi	100	0
2	br010_	48	0
3	br001_	0	47
4	euro5	45	0
5	ph006d7	45	0
6	ph006d2	41	0
7	adl2	40	0
8	euro2	0	38
9	orienti	0	38
10	ph004_	0	38
11	ph006d4	0	38
12	bmi2	37	0
13	br015_	36	0
14	ph006d8	0	35
15	br016_	0	32
16	euro4	0	32
17	phactiv	29	0
18	ph006d3	27	0
19	iadl2	20	0
20	euro10	0	14
21	gender	0	14
22	ph006d6	11	0
23	ph006d9	10	1
24	mobilit2	10	0
25	ph006d14	0	10
26	euro6	8	1
27	eurodcat	7	0
28	numeracy	7	0
29	ph006d11	5	1
30	euro11	0	5
31	euro3	0	5
32	euro9	4	1
33	ph006d13	5	0
34	ph006d12	3	1
35	euro7	1	2

Num	Variable	Positive	Negative
36	ph006d10	0	3
37	sphus	3	0
38	br017_	0	2
39	ph006d1	0	1
40	sphus2	0	1

Variables selected by LASSO: ES

Num	Variable	Positive	Negative
1	bmi2	100	0
2	bmi	97	0
3	orienti	0	95
4	mobilit2	16	0
5	euro4	0	13
6	br001_	0	12
7	age	10	0
8	br010_	10	0
9	br017_	0	10
10	casp	0	9
11	ph006d3	9	0
12	ph006d4	9	0
13	euro3	8	0
14	ph006d10	0	8
15	euro9	0	7
16	mobilit3	0	7
17	ph006d2	7	0
18	sphus2	7	0
19	euro10	0	6
20	euro11	6	0
21	ph006d9	0	6
22	br015_	5	0
23	gender	0	5
24	ph006d12	4	1
25	ph006d8	0	5
26	br016_	4	0
27	ph006d14	4	0
28	ph006d13	3	0
29	adl	0	2
30	adl2	2	0
31	numeracy	1	1
32	ph004_	2	0
33	ph006d11	0	2
34	ph006d6	0	2
35	euro1	0	1



---

Num	Variable	Positive	Negative
36	euro12	1	0
37	euro2	0	1
38	euro5	0	1
39	euro6	0	1
40	euro8	0	1
41	eurodcat	1	0
42	gali	1	0
43	iadl	1	0
44	iadl2	0	1
45	maxgrip	1	0
46	mobility	1	0
47	ph006d1	1	0
48	ph006d7	1	0
49	phactiv	0	1
50	sphus	0	1

---

Variables selected by LASSO: FR

Num	Variable	Positive	Negative
1	bmi	100	0
2	br017_	12	0
3	sphus	12	0
4	ph006d2	10	0
5	br015_	7	0
6	euro3	0	7
7	euro2	4	0
8	gali	0	3
9	bmi2	1	0
10	euro1	1	0
11	euro12	0	1
12	gender	0	1
13	maxgrip	1	0
14	mobility	1	0

Variables selected by LASSO: GR

Num	Variable	Positive	Negative
1	sphus	100	0
2	ph006d3	69	0
3	ph006d1	68	0
4	ph006d9	0	50
5	euro6	0	34
6	maxgrip	33	0
7	euro3	32	0
8	iadl2	5	27
9	casp	0	27
10	euro11	0	23
11	euro5	0	23
12	bmi	21	0
13	ph006d11	0	21
14	phactiv	0	21
15	iadl	0	20
16	ph006d4	0	20
17	adl2	19	0
18	br016_	0	19
19	ph006d10	0	19
20	euro9	18	0
21	euro7	0	16
22	ph006d6	0	16
23	euro2	0	14
24	numeracy	0	14
25	euro12	13	0
26	ph006d13	0	13
27	br015_	12	0
28	mobilit3	8	4
29	ph006d12	11	1
30	ph006d14	10	2
31	ph006d8	0	12
32	age	11	0
33	bmi2	0	11
34	euro1	0	11
35	euro8	9	2

---

Num	Variable	Positive	Negative
36	orienti	11	0
37	br001_	9	1
38	euro4	6	4
39	mobility	10	0
40	adl	6	3
41	br010_	0	9
42	mobilit2	2	7
43	ph004_	9	0
44	ph006d2	9	0
45	ph006d7	7	2
46	sphus2	3	6
47	gender	7	1
48	br017_	0	6
49	eurodcat	4	2
50	euro10	3	2
51	gali	1	4

---

Variables selected by LASSO: IL

Num	Variable	Positive	Negative
1	bmi2	100	0
2	casp	0	100
3	gender	0	100
4	ph006d10	0	91
5	maxgrip	90	0
6	br010_	87	0
7	euro11	82	0
8	euro2	77	0
9	euro7	0	77
10	br017_	71	0
11	ph006d1	0	71
12	br001_	69	0
13	ph006d4	66	0
14	ph006d6	62	0
15	euro3	60	0
16	ph006d11	59	0
17	iadl2	0	49
18	ph006d2	48	0
19	ph006d8	45	0
20	mobility	44	0
21	sphus2	40	0
22	br016_	37	0
23	euro6	0	32
24	phactiv	0	27
25	ph006d14	0	25
26	ph006d9	0	25
27	bmi	22	0
28	euro10	20	0
29	euro5	0	20
30	age	17	1
31	euro12	0	18
32	ph006d7	18	0
33	adl2	14	0
34	mobilit3	14	0
35	orienti	0	14

---

Num	Variable	Positive	Negative
36	ph004_	11	0
37	iadl	0	9
38	br015_	8	0
39	sphus	7	0
40	ph006d12	5	0
41	ph006d13	3	2
42	ph006d3	5	0
43	euro1	2	2
44	eurodcat	0	4
45	mobilit2	4	0
46	euro4	1	1
47	euro8	1	1
48	euro9	0	2
49	gali	2	0
50	numeracy	2	0
51	adl	0	1

---

Variables selected by LASSO: IT

Num	Variable	Positive	Negative
1	bmi	100	0
2	bmi2	61	0
3	age	54	0
4	ph004_	0	46
5	gali	42	0
6	br016_	33	0
7	br015_	26	0
8	ph006d10	22	0
9	ph006d2	21	0
10	ph006d6	21	0
11	sphus	21	0
12	ph006d4	0	16
13	euro9	0	11
14	ph006d12	0	11
15	ph006d8	0	11
16	adl2	10	0
17	br017_	10	0
18	euro12	10	0
19	euro4	0	10
20	euro8	0	10
21	gender	0	10
22	mobility	0	10
23	ph006d14	0	10
24	br010_	9	0
25	euro6	9	0
26	maxgrip	0	9
27	numeracy	9	0
28	phactiv	0	9
29	adl	0	8
30	euro2	0	8
31	ph006d3	2	6
32	br001_	0	7
33	ph006d7	7	0
34	ph006d9	0	7
35	casp	0	6

---

Num	Variable	Positive	Negative
36	euro10	6	0
37	euro7	0	6
38	mobilit3	0	6
39	ph006d11	0	6
40	euro11	2	3
41	eurodcat	5	0
42	ph006d13	0	5
43	sphus2	3	2
44	euro5	2	2
45	iadl2	1	3
46	mobilit2	2	2
47	orienti	3	1
48	ph006d1	0	4
49	iadl	0	2
50	euro3	0	1

---



Variables selected by LASSO: NL

Num	Variable	Positive	Negative
1	bmi2	100	0
2	sphus	98	0
3	age	96	0
4	bmi	94	0
5	ph006d4	94	0
6	euro10	93	0
7	gender	0	89
8	ph006d1	87	0
9	ph006d11	83	0
10	ph006d10	77	0
11	ph004_	0	76
12	br010_	61	0
13	euro9	50	0
14	ph006d6	44	0
15	br015_	43	0
16	eurodcat	40	0
17	numeracy	0	36
18	iadl	0	35
19	euro4	0	33
20	br001_	0	32
21	orienti	0	32
22	gali	0	30
23	euro12	0	27
24	ph006d2	25	0
25	phactiv	0	25
26	euro3	0	24
27	euro8	23	0
28	iadl2	0	18
29	euro6	15	1
30	mobilit2	0	15
31	casp	1	13
32	euro2	0	14
33	ph006d9	0	14
34	ph006d13	0	13
35	br017_	0	11

---

Num	Variable	Positive	Negative
36	ph006d7	0	10
37	ph006d8	10	0
38	euro7	9	0
39	euro1	0	8
40	ph006d14	0	7
41	ph006d3	7	0
42	adl	6	0
43	adl2	0	4
44	euro11	1	3
45	mobilit3	0	4
46	ph006d12	3	1
47	sphus2	4	0
48	br016_	0	2
49	maxgrip	1	1
50	euro5	1	0
51	mobility	0	1

---

Variables selected by LASSO: SE

Num	Variable	Positive	Negative
1	bmi2	100	0
2	ph006d3	47	0
3	ph006d2	31	0
4	gender	0	23
5	ph006d10	0	17
6	br016_	14	0
7	ph006d11	12	0
8	maxgrip	7	0
9	ph006d13	0	5
10	euro7	0	4
11	sphus2	4	0
12	bmi	3	0
13	br001_	0	2
14	euro8	0	2
15	br015_	1	0
16	euro2	1	0
17	euro5	0	1
18	iadl	0	1
19	mobilit2	1	0
20	ph004_	0	1
21	ph006d14	0	1
22	ph006d8	0	1

Variables selected by LASSO: All

Num	Variable	Positive	Negative
1	bmi	100	0
2	bmi2	100	0
3	br010_	100	0
4	br015_	100	0
5	casp	0	100
6	country_ES	100	0
7	country_IL	100	0
8	country_IT	100	0
9	gender	0	100
10	orienti	0	100
11	ph004_	0	100
12	ph006d2	100	0
13	ph006d3	100	0
14	sphus2	100	0
15	br001_	0	99
16	sphus	96	0
17	country_BE	0	95
18	country_CH	0	95
19	iadl2	0	95
20	age	93	0
21	br017_	92	0
22	euro10	92	0
23	euro7	0	91
24	country_AT	89	0
25	country_FR	88	0
26	ph006d13	0	85
27	adl2	78	0
28	ph006d9	0	78
29	euro4	0	76
30	phactiv	0	74
31	mobilit3	0	73
32	euro2	71	0
33	mobilit2	71	0
34	euro8	0	68
35	ph006d8	0	67

---

Num	Variable	Positive	Negative
36	adl	0	63
37	country_DK	0	58
38	ph006d6	58	0
39	euro12	56	0
40	numeracy	0	53
41	euro3	0	51
42	ph006d7	49	0
43	country_DE	0	47
44	euro1	47	0
45	country_NL	0	41
46	ph006d11	33	0
47	mobility	31	0
48	euro9	0	26
49	ph006d12	24	1
50	br016_	23	0
51	iadl	0	23
52	country_GR	0	20
53	euro5	0	20
54	ph006d14	1	19
55	euro11	0	16
56	ph006d10	10	6
57	ph006d1	8	7
58	ph006d4	10	5
59	country_SE	0	9
60	euro6	6	3
61	gali	3	4
62	eurodcat	1	4
63	maxgrip	3	2

---

