

## Online-Appendix: Additional Figures and Tables

List of 40 Variables included in the frailty index	Cut Point	
Help Bathing	Yes = 1, No = 0	
Help Dressing	Yes = 1, No = 0	
Help getting in/out of Chair	Yes = 1, No = 0	
Help Walking around house	Yes = 1, No = 0	
Help Eating	Yes = 1, No = 0	
Help Grooming	Yes = 1, No = 0	
Help Using Toilet	Yes = 1, No = 0	
Help up/down Stairs	Yes = 1, No = 0	
Help lifting 10 lbs	Yes = 1, No = 0	
Help Shopping	Yes = 1, No = 0	
Help with Housework	Yes = 1, No = 0	
Help with meal Preparations	Yes = 1, No = 0	
Help taking Medication	Yes = 1, No = 0	
Help with Finances	Yes = 1, No = 0	
Lost more than 10 lbs in last year	Yes = 1, No = 0	
Self Rating of Health	Poor = 1, Fair = 0.75, Good = 0.5, V. Good = 0.25, Excellent = 0	
How Health has changed in last year	Worse = 1, Better/Same = 0	
Stayed in Bed at least half the day due to health (in last month)	Yes = 1, No = 0	
Cut down on Usual Activity (in last month)	Yes = 1, No = 0	
Walk outside	<3 days = 1, $\leq 3$ days = 0	
Feel Everything is an Effort	Most of time = 1, Some time = 0.5, Rarely = 0	
Feel Depressed	Most of time = 1, Some time = 0.5, Rarely = 0	
Feel Happy	Most of time = 0, Some time = 0.5, Rarely = 1	
Feel Lonely	Most of time = 1, Some time = 0.5, Rarely = 0	
Have Trouble getting going	Most of time = 1, Some time = 0.5, Rarely = 0	
High blood pressure	Yes = 1, Suspect = 0.5, No = 0	
Heart attack	Yes = 1, Suspect = 0.5, No = 0	
CHF	Yes = 1, Suspect = 0.5, No = 0	
Stroke	Yes = 1, Suspect = 0.5, No = 0	
Cancer	Yes = 1, Suspect = 0.5, No = 0	
Diabetes	Yes = 1, Suspect = 0.5, No = 0	
Arthritis	Yes = 1, Suspect = 0.5, No = 0	
Chronic Lung Disease	Yes = 1, Suspect = 0.5, No = 0	
MMSE	<10 = 1, 11-17 = 0.75, 18-20 = 0.5, 20-24 = 0.25, >24 = 0	
Peak Flow	See Table 2	
Shoulder Strength	See Table 2	
BMI	See Table 2	
Grip Strength	See Table 2	
Usual Pace	See Table 2	
Rapid Pace	See Table 2	
Variable	Deficit for Men	Deficit for Women
Peak Flow (liters/min)	$\leq 340$	$\leq 310$
Body Mass Index (BMI)	<18.5, $\geq 30$ as a deficit. 25-<30 as a 'half deficit'	<18.5, $\geq 30$ as a deficit. 25-<30 as a 'half deficit'
Shoulder Strength (kg)	$\leq 12$	$\leq 9$
Grip Strength (GS in kg)	For BMI $\leq 24$ , GS $\leq 29$ For BMI 24.1-28, GS $\leq 30$ For BMI >28, GS $\leq 32$	For BMI $\leq 23$ , GS $\leq 17$ For BMI 23.1-26, GS $\leq 17.3$ For BMI 26.1-29, GS $\leq 18$ For BMI >29, GS $\leq 21$
Rapid pace Walk (sec)	>10	>10
Usual pace Walk (sec)	>16	>16

Table A.1: List of deficits in Searle et al. (2008, Tab. 1 and 2)

Note: The individual health deficit index in Searle et al. (2008) is computed by summing up the cut points for an individual and dividing by 40.

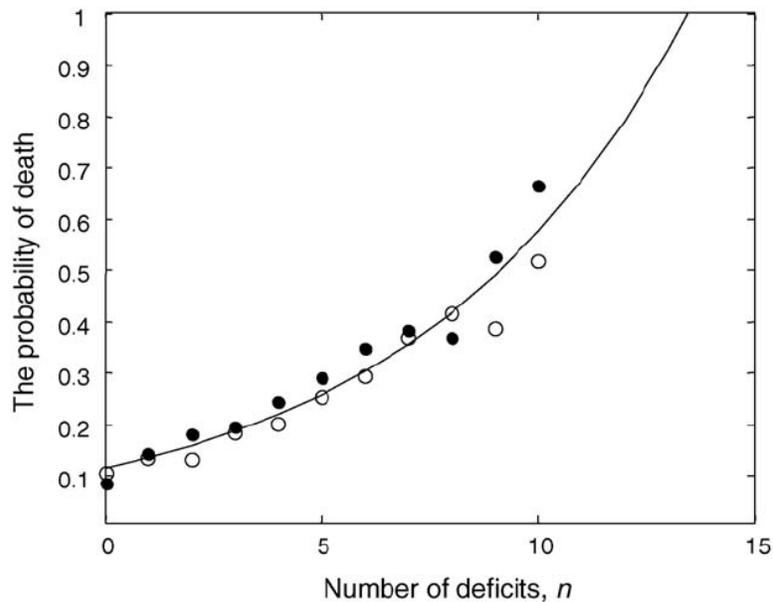


Figure A.1: Mortality rates and the number of health deficits (out of 31 potential deficits) for a cross section of Canadian cohorts aged 65+ from three waves.

Source: Mitnitski, Bao and Rockwood (2006, Fig. 2).

Notes: (1) Data from the Canadian Study of Health and Aging (CSHA), “a representative cohort study designed to study dementia and other age-related problems [...]. Briefly, in 1990-1991, during the first wave of the study (CSHA-1) 9008 community-dwelling people age 65 and over were assessed using a self-report questionnaire, of whom complete data are available for 5586 survivors for the second wave (CSHA-2, conducted in 1995-1996) and 3211 for the third wave (CSHA-3, conducted in 2000-2001).” Mitnitski et al. (2006, p. 492). (2) Original note: “Probability estimates come from the combined model of CSHA-1 to CSHA-2 (filled circles), and CSHA-2 to CSHA-3 (empty circles). Circles represent observational data and lines show the fit.”

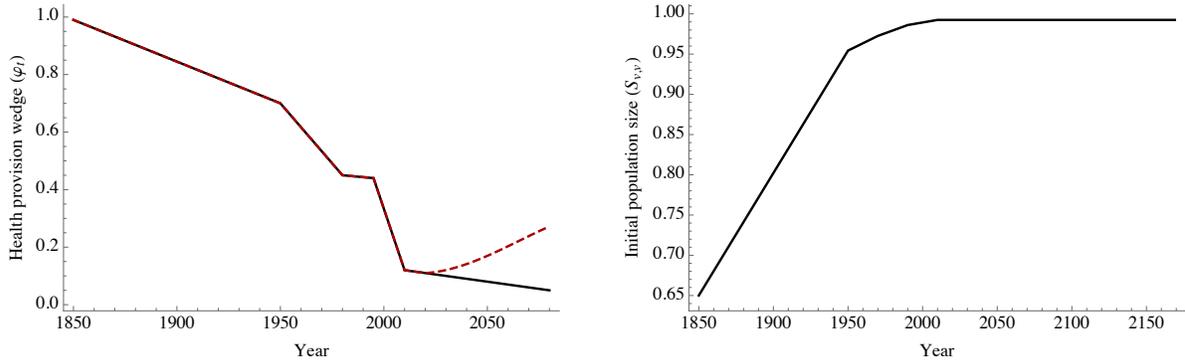


Figure A.2: Calibration of the time paths of the health care wedge and initial cohort sizes in the baseline scenario (solid line) and the constant health share policy scenario (dashed line).

Age	1950		1970		1990		2010	
	Data	Model	Data	Model	Data	Model	Data	Model
20	51.8	53.0	53.8	54.4	56.7	56.8	61.0	60.6
25	47.0	48.1	49.0	49.4	51.9	51.9	56.1	55.7
30	42.4	43.2	44.2	44.6	47.1	47.0	51.2	50.8
35	37.8	38.4	39.4	39.8	42.3	42.2	46.4	46.0
40	33.2	33.7	34.7	35.0	37.5	37.5	41.6	41.2
45	28.7	29.1	30.1	30.4	32.8	32.8	36.9	36.5
50	24.4	24.7	25.7	26.0	28.2	28.3	32.3	31.9
55	20.3	20.5	21.6	21.7	23.9	24.0	27.8	27.5
60	16.6	16.6	17.7	17.7	19.8	19.9	23.5	23.3
65	13.2	13.0	14.3	14.1	16.1	16.1	19.4	19.3
70	10.2	9.9	11.3	10.8	12.9	12.6	15.5	15.6
75	7.6	7.2	8.7	8.0	10.0	9.6	12.0	12.2
80	5.6	5.0	6.5	5.7	7.5	7.0	8.9	9.3
85	4.1	3.4	4.8	3.9	5.5	4.9	6.4	6.8
90	3.0	2.1	3.5	2.5	4.0	3.3	4.4	4.8
95	2.2	1.2	2.6	1.5	2.9	2.1	3.1	3.2
100	1.8	0.6	2.0	0.8	2.1	1.2	2.2	2.0

Table A.2: Comparison of remaining period life expectancy according to age: UK data vs calibrated model, for years 1950, 1970, 1990, 2010.

Age	2020	2050		2080	
	Baseline	Baseline	Reform	Baseline	Reform
20 .....	63.6	73.5	72.7	83.7	79.1
25 .....	58.7	68.6	67.9	78.8	74.3
30 .....	53.8	63.8	63.0	74.0	69.4
35 .....	49.0	59.0	58.2	69.2	64.6
40 .....	44.2	54.2	53.4	64.4	59.9
45 .....	39.5	49.4	48.7	59.6	55.2
50 .....	34.8	44.8	44.0	54.9	50.5
55 .....	30.3	40.1	39.4	50.3	46.0
60 .....	26.0	35.6	34.9	45.7	41.5
65 .....	21.9	31.2	30.5	41.2	37.2
70 .....	18.0	26.9	26.3	36.8	33.0
75 .....	14.4	22.9	22.3	32.5	28.9
80 .....	11.2	19.0	18.5	28.4	25.0
85 .....	8.5	15.5	15.0	24.4	21.3
90 .....	6.1	12.3	11.9	20.5	17.8
95 .....	4.3	9.5	9.1	16.9	14.5
100 .....	2.8	7.1	6.8	13.4	11.4

Table A.3: Implied remaining period life expectancies according to age: baseline vs. constant health share (reform) scenario for years 2020, 2050, 2080.

Age	2020		2050	
	Baseline	Reform	Baseline	Reform
20 .....	86.2	80.3	91.0	80.6
25 .....	80.2	75.2	85.5	75.8
30 .....	74.2	69.9	80.0	71.0
35 .....	68.0	64.4	74.5	66.2
40 .....	61.4	58.5	68.9	61.4
45 .....	54.6	52.3	63.4	56.6
50 .....	47.8	46.0	57.8	51.8
55 .....	41.1	39.8	52.2	47.0
60 .....	34.7	33.9	46.7	42.3
65 .....	28.7	28.2	41.1	37.4
70 .....	23.1	22.8	35.5	32.3
75 .....	18.1	17.9	29.8	27.3
80 .....	13.7	13.6	24.4	22.4
85 .....	10.0	10.0	19.5	18.0
90 .....	7.0	7.0	15.2	14.0
95 .....	4.7	4.7	11.4	10.5
100 .....	3.0	3.0	8.2	7.6

Table A.4: Implied remaining cohort life expectancies according to age: baseline vs. constant health share (reform) scenario for years 2020 and 2050.