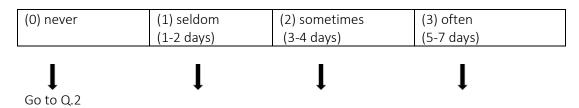
Domain	Test	Cut-off Score
Slowness	4-meter gait speed component	>5s
	of SPPB	
Weakness	Handgrip Strength Test	male ≤30 kg,
		female ≤20kg
Weight Loss	Self–reported	≥4.5 kg
Low Physical Activity	Paffenbarger Physical Activity	male<383 kcals/week, female
	Index	<270 kcals/week
Exhaustion	2 Item CES–D Questionnaire	≥2

CES-D: Center for Epidemiologic Studies Depression; s: second; kg: kilogram; kcal: kilocalories; each of the five domains was scored as 0 or 1 indicating the absence or presence of that component. The frailty score was calculated as the sum of the domain scores (range 0–5); frail: \geq 3 criteria present; pre-frail:1 or 2 criteria present; robust: 0 criteria present.

Supplemental Appendix 2: Paffenbarger Physical Activity Index

1. Over the past 7 days, how often did you a take a walk outside your home or yard for any reason? For example for fun or exercise, walking to work, walking the dog etc?



1a. On average, how many hours per day did you spend		
walking <u>on these c</u>	lays?	
(1) less than 1 hou	ur (2) 1 but less than 2 hours	
(3) 2-4 hours	(4) more than 4 hours	

b) What was the total distance (kms/miles/blocks) that you walked in the past 7 days? (1 mile = 12 blocks: 1km = 0.625 miles).

Total number of blocks walked in the past week, or km....., or miles....

(1) Less than 1 mile

(2) One but less than 2 miles

(3) Two to 4 miles

(4) More than 4 miles

2. How many flights of stairs did you climb up in the past 7 days? (One flight= 10 steps) Total number of steps climbed in the past week....., or flights of steps......

(1) Less than 1 flight

(2) One but less than 2 flights

(3) Two to 4 flights

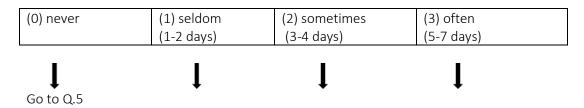
(4) More than 4 flights

3. Over the past 7 days, how often did you engage in **light** sport or recreational activities such as **'light'** cycling on an exercise bike, lawn bowls, bowling, water aerobics, golf with a cart, yoga, tai chi, fishing from a boat or pier or other similar activites?



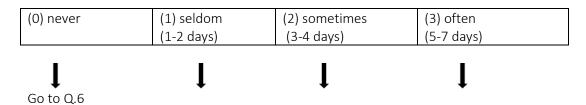
3a. What were these acti	ivities?	
3b. On average, how many hours per day did you engage in		
these light sport or recreational activities <u>on these days</u> ?		
(1) less than 1 hour	(2) 1 but less than 2 hours	
(3) 2-4 hours	(4) more than 4 hours	

4. Over the past 7 days, how often did you engage in **moderate** sport or recreational activities such as double tennis, ballroom dancing, golf without a cart, softball or other similar activities?



4a. What were these activi	ties?	
	hours per day did you engage in	
4b. On average, how many hours per day did you engage in these moderate sport or recreational activities on these		
days?		
(1) less than 1 hour	(2) 1 but less than 2 hours	
(3) 2 - 4 hours	(4) more than 4 hours	

5. Over the past 7 days, how often did you engage in **strenuous** sport and recreational activities such as jogging, swimming, cycling, single tennis, aerobic dance, skiing (downhill or cross country) or other similar activities?



5a. What were these activit	ies?	
5b. On average, how many hours per day did you engage in		
these moderate sport or recreational activities on these		
days?		
(1) less than 1 hour	(2) 1 but less than 2 hours	
(3) 2 - 4 hours	(4) more than 4 hours	

Paffenbarger Score:

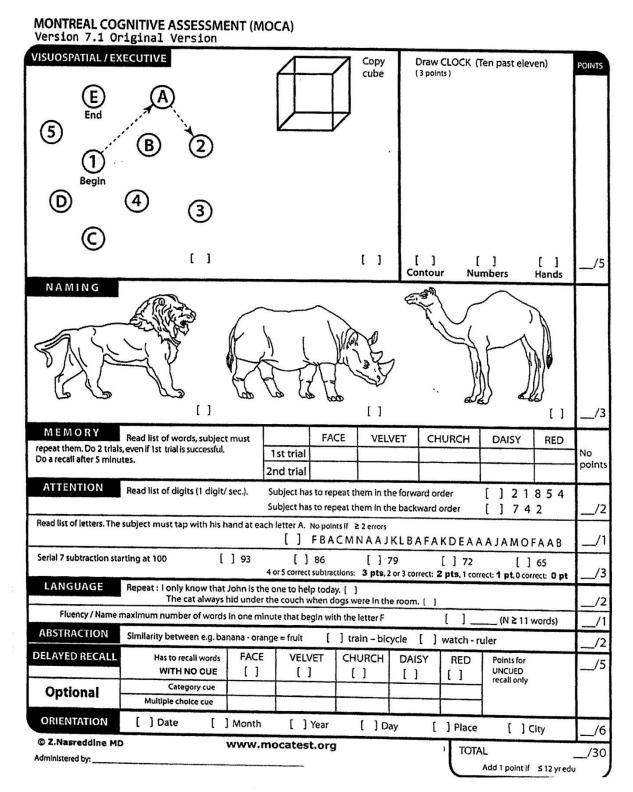
Blocks walked	Х	8 kcal / block	=	kcal
Flights climbed	Х	4 kcal / flight	=	kcal
Minutes light sport/recreation	Х	5 kcal / min	=	kcal
Minutes Moderate sport recreation or muscle strength	Х	7.5 kcal / min	=	kcal
Minutes heavy sport/recreation	Х	10 kcal / min	=	kcal
			Total	kcal/week

Supplemental Appendix 3: 2 Item CES–D Questionnaire

2 Item CES–D Questionnaire	Scoring
How often in the last week did you feel that everything was an	
effort?	
Rarely or none of the time (<1 day)	0
Some or a little of the time $(1-2 \text{ days})$	1
Occasionally or a moderate amount of time (3–4 days)	2
Most or all of the time (5–7 days)	3
How often in the last week did you feel that you could not "get	
going"?	
Rarely or none of the time (<1 day)	0
Some or a little of the time $(1-2 \text{ days})$	1
Occasionally or a moderate amount of time (3–4 days)	2
Most or all of the time (5–7 days)	3

CES-D: Center for Epidemiologic Studies Depression; score of 2 or more to either of questions defined as exhaustion.

Supplemental Appendix 4: Montreal Cognitive Assessment



Supplemental Appendix 5: 5-Item GDS

5 Item GDS		
Are you basically satisfied with your life?	Yes	No
Do you often get bored?	Yes	No
Do you often feel helpless?	Yes	No
Do you prefer to stay at home rather than going out and doing new things?	Yes	No
Do you feel pretty worthless the way you are now?	Yes	No

GDS: Geriatric Depression Scale; each bold answer was scored as 1; the depression score was calculated as the sum of the scores (range 0–5); depressive symptoms: ≥ 2

Supplemental Appendix 6: EQ-5D-3L

EQ-5D (UK English version)

By placing a tick in one box in each group below, please indicate which statements best describe your own health state today.

Mobility

I have no problems in walking about	
I have some problems in walking about	
I am confined to bed	

Self–Care

I have no problems with self-care	
I have some problems washing or dressing myself	
I am unable to wash or dress myself	

Usual Activities (e.g. work, study, housework, family or	
leisure activities)	
I have no problems with performing my usual activities	
I have some problems with performing my usual activities	
I am unable to perform my usual activities	

Pain/Discomfort

I have no pain or discomfort	
I have moderate pain or discomfort	
I have extreme pain or discomfort	

Anxiety/Depression

I am not anxious or depressed	
I am moderately anxious or depressed	
I am extremely anxious or depressed	

To help people say how good or bad a health state is, we have drawn a scale (rather like a thermometer) on which the best state you can imagine is marked 100 and the worst state you can imagine is marked 0.

We would like you to indicate on this scale how good or bad your own health is today, in your opinion. Please do this by drawing a line from the box below to whichever point on the scale indicates how good or bad your health state is today.

> Your own health state today

Best imaginable health state 100 0 Worst imaginable health state

Baseline Characteristics	Improved n= 5	Worsened n=7	
	Mean ± SD; Median (IQR);	Mean ± SD; Median (IQR);	
	n (%)	n (%)	
Age (years)	56.6 ± 12.5	64.7 ± 12.4	p=0.16
< 65 years	3 (60.0%)	4 (57.1%)	p 0.10
≥ 65 years	2 (40.0%)	3 (42.9%)	
Gender (female)	1 (20.0%)	3 (42.9%)	p=0.58
Ethnicity			·
Caucasian	3 (60.0%)	6 (85.7%)	
Aboriginal	-	1 (14.3%)	p=0.15
Asian	2 (40.0%)	-	
Education .			
Education			
≤12 years of education	3 (60.0%)	2 (28.6%)	p=0.56
>12 years of education	2 (40.0%)	5 (71.4%)	0.60
Weight (kg)	90.9 ± 26.8	81.7 ± 24.4	p=0.68
Height (cm)	168.9 ± 9.4	169.2 ±8.9	p=0.46
BMI (kg/m ²)	29.3 ± 7.26	29.5 ± 7.5	p=0.94
Systolic Blood Pressure (mmHg)	135.3 ± 25.1	136.1 ± 29.4	p=0.37
Diastolic Blood Pressure (mmHg)	73.0 ± 13.6	72.3 ± 17.0	P=0.81
Comorbidities			
Diabetes I or II	3 (60.0%)	4 (57.1%)	p=1.00
Peripheral Vascular Diseases	1 (20.0%)	0 (0.0%)	p=0.42
Hypertension	5 (100.0%)	6 (85.7%)	p=1.00
Dyslipidemia	0 (0%)	0 (0%)	-
Vintage of Dialysis (months)	9.0 (4—20)	68 (37.5—135.5)	p=0.01
Components of Frailty			
Slowness	5 (100.0%)	6 (85.7%)	p=1.00
Weakness	4 (80.0%)	5 (71.4%)	p=1.00
Weight Loss ≥ 4.5kg	1 (20.0%)	1 (14.3%)	p=1.00
Low Physical Activity	3 (60.0%)	4 (57.1%)	p=1.00
Exhaustion	3 (60.0%)	4 (57.1%)	p=1.00

Supplemental Table 1: Change in frailty status

IQR: Interquartile Range; SD: Standard Deviation. Baseline characteristics were compared between the two groups using Mann-Whitney U test for continuous variables and Fisher's Exact test for categorical variables.

Baseline Characteristics	Frail Mean ± SD; Median (IQR); n (%)	Not- Frail Mean ± SD; Median (IQR); n (%)	P value
Age (years)	64.8 ± 13.9	59.4 ± 17.3	p=0.15
Gender (female)	33 (50.0%)	9 (29.0%)	p=0.08
Ethnicity Caucasian Aboriginal Asian	47 (71.2%) 15 (22.7%) 4 (6.1%)	25 (80.6%) 4 (12.9%) 2 (6.5%)	p=0.66
Education ≤12 years of education >12 years of education	18 (27.3%) 48 (72.7%)	17 (54.8%) 14 (45.2%)	p=0.01
Weight (kg)	82.0 ± 24.1	86.7 ± 22.4	p=0.19
Height (cm)	168.0 ± 9.0	169.2 ± 9.5	p=0.53
BMI (kg/m²)	28.9 ± 7.0	30.4 ± 8.1	p=0.40
Systolic Blood Pressure (mmHg)	134.1 ± 26.9	138.7 ± 21.9	P=0.39
Diastolic Blood Pressure (mmHg)	71.8 ± 14.4	76.1 ± 11.3	p=0.14
Comorbidities Diabetes I or II Peripheral Vascular Diseases Hypertension Dyslipidemia	31 (47.0%) 5 (7.6%) 45 (68.2%) 7 (10.6%)	11 (35.5%) 2 (6.5%) 21 (67.7%) 8 (25.8%)	p=0.22 p=0.73 p=0.48 p=0.15
Vintage of Dialysis (months)	37.0 (16—75.75)	29 (9.5—58.5)	p=0.40

Supplemental Table 2: Comparison of baseline characteristics between frail and not-frail groups

IQR: Interquartile Range; SD: Standard Deviation. Baseline characteristics were compared between the two groups using Mann-Whitney U test for continuous variables and Fisher's Exact test for categorical variables.

Supplemental Table 3: Comparison of characteristics between baseline and 1- year follow-up

	Baseline	1–Year Follow–Up	
Characteristics	Madian	(IOP): p (%)	P value for Paired
Characteristics	iviedian (Median (IQR); n (%)	
Frail	42 (64.6%)	44 (67.7%)	p=0.774; n=65
Fried Frailty Domains			
Slowness	43 (66.2%)	39 (60%)	p=0.481; n=65
Weakness	45 (69.2%)	50 (76.9%)	p=0.18; n=65
Weight Loss	9 (13.8%)	12 (18.5%)	p=0.549; n=65
Low Physical Activity	52 (80%)	44 (67.7%)	p=0.115; n=65
Exhaustion	26 (40%)	34 (52.3%)	p=0.152; n=65
Cognitive Impaired	38 (61.3%)	40 (64.5%)	p=0.832; n=62
MoCA Score (≤24)	23 (18–26)	24 (20.75–25.25)	p=0.159; n=62
Depressive Symptoms	33 (52.4%)	30 (47.6%)	p=0.629; n=63
GDS Score (≥ 2)	2 (1-4)	1 (0–3)	p=0.039; n=63
	2(1 4)	1 (0 5)	p=0.035, fi=05
EQ-5D-3L Dimensions			
Mobility			
Problems	44 (67.7%)	54 (83.1%)	p=0.02; n=65
Self–Care			
Problems	4 (6.2%)	12 (18.5%)	p=0.02; n=65
Daily Activities			
Problems	35 (53.8%)	38 (58.5%)	p=0.70 ; n=65
Pain/ Discomfort			
Problems	41 (63.1%)	41 (63.1%)	p>0.999; n=65
	11 (00.170)	11 (00.170)	pr 0.555, 11 00
Anxiety/ Depression			
Problems	20 (30.8%)	24 (36.9%)	p=0.52; n=65
EQ-5D Utility Score	0.81(0.7-0.85)	0.77(0.69-0.84)	p=0.037; n=65
EQ-VAS	60 (50-80)	50(45-80)	p=0.772; n=63
Level of Dependence			n=65
Independent	53 (81.5%)	41 (63.1%)	
Independent with Support	11 (16.9%)	20 (30.8%)	
Home Care	1 (1.5%)	2 (3.1%)	
Long Term Care Home	0 (0%)	2 (3.1%)	

IQR: Interquartile Range; MoCA: Montreal Cognitive Assessment; GDS: Geriatric Depression Scale; EQ–5D–3L: EuroQol–5 Dimensions–3 Levels; EQ–VAS: EuroQol Visual Analog Scale.

Frailty was measured using 5–Item Fried Frailty Criteria, frail: \geq 3 criteria present, non-frail: <3, non-frail was considered the combination of robust and pre–frail. Cognitive function was measured using the MoCA: the highest possible score is 30, cognitive impaired: MoCA score \leq 24. Depressive symptoms were identified using 5–Item GDS questionnaire: the worst possible score is 5, depressed: GDS score \geq 2; Quality of life was measured using EQ–5D; problems in each dimension was considered the

combination of moderate and extreme problems. EQ–5D utility score: 0 means death, and 1 is the best health state; EQ–VAS: 0 is the worst imaginable health state, and 100 is the best imaginable health state.