

Cress et al. Supplemental Information  
Supplemental Statistical Analysis

*Missing values*

All six tasks, (3 from the SPPB and 3 from the PPME) were performed by 162 participants. Transfer from a bed to a chair and sitting up in bed (bed mobility) were assessed on 209 individuals. Two methods were used to determine probable values when data were missing. First, tester's field comments were used to verify very low functional status. When participant's inability to perform the task was confirmed a score of zero was given. For example, the field comments for two participants in the study read: "Need two persons help to walk" or "use of bed lift". In each of these cases, relevant items with missing data were recoded to a score of zero. When the field comments did not clearly validate functional status, (e.g. "Unable to do multiple sections due to frailty" or "very uncomfortable free standing"), the value was left as missing.

In order to determine the probable score for those individuals who were not administered the transfer and bed mobility tasks, scores on these items were cross-tabulated with those of all other items for participants with complete data. Two rules from this analysis emerged. Participants who could walk faster than 4.1 seconds and could step up without gripping hand rails were always able to perform the bed mobility task without assistance in < 10 seconds (score of 2) and transfer from seated position without assistance (score of 2). Missing data for bed mobility and transfer tasks was recoded to a two for participants who met these rules (n= 23). When available, videotape from interviews with the participant used to validate the imputed values.

Table S1:

*Performance scoring cut-offs for two populations: Established Populations of Epidemiological Studies of the Elderly (EPESE) and the Georgia Centenarian Study.*

8-foot walk	Score	EPESE	GCS
Cut-off for slowest <25%	1	≥5.7	≥9.8
26-50%	2	5.6-4.1	9.7-5.8
51-75%	3	4.0-3.2	5.7-3.8
76-100%	4	≤3.1	≤3.8
Cut-off for fastest			
<b>Chair stand</b>			
Cut-off for slowest <25%	1	≥16.7	≥23.1
26-50%	2	13.7-16.6	23.0-17.6
51-75%	3	11.2-16.5	17.6-14.5
76-100%	4	≤11.1	≤14.4
Cut-off for fastest			

Table S2  
*Raw Scores on Physical Performance Scales by Gender and Age Group*

Score	Octogenarians		Centenarians	
	Men	Women	Male	Female
<b>SPPB</b>				
0	7.4	11.3	46.0	53.1
1	3.7	1.9	10.8	17.9
2	3.7	11.3	8.1	9.7
3	7.4	5.7	8.1	5.3
4	11.1	5.7	5.4	3.4
5	3.7	13.2	8.1	3.4
6	22.2	9.4	8.1	2.9
7	3.7	7.6	0.0	1.5
8	14.8	13.2	2.7	1.9
9	7.4	11.3	2.7	1.0
10	7.4	7.6	0.0	0.0
11	3.7	1.9	0.0	0.0
12	3.7	0.0	0.0	0.0
<b>PPME</b>				
0	7.4	7.6	27.0	38.2
1	0.0	3.8	2.7	5.8
2	11.1	15.1	18.9	12.1
3	3.7	5.7	5.4	8.7
4	11.1	0.0	10.8	14.5
5	7.4	22.6	21.6	17.9
6	59.3	45.3	13.5	2.9
<b>GCS Composite</b>				
1	0.0	0.0	5.4	18.4
2	7.4	5.7	2.7	4.4
3	0.0	0.0	21.6	19.3
4	0.0	7.6	5.4	6.3
5	11.1	7.6	8.1	7.3
6	3.7	5.7	8.1	9.7
7	3.7	5.7	5.4	12.1
8	3.7	1.9	16.2	9.2
9	3.7	3.8	8.1	3.9
10	11.1	18.9	8.1	6.8
11	25.9	17.0	5.4	1.5
12	29.6	26.4	5.4	1.5

Table S3:  
*Distribution of sample at the extremes of instrument scales*

	Zero N (%)	Floor N (%)	Ceiling N (%)	Range
PPME	95 (29.3)	15 (4.6)	51 (15.7)	0-6
SPPB	135 (41.7)	43 (13.3)	1 (0.3)	0-12
GSC Composite	40 (12.3)	15 (4.6)	27 (8.3)	1-12

PPME = Physical Performance Mobility Exam; SPPB = Short Physical Performance Battery;  
 GCS Composite = Georgia Centenarian Study Composite scale

Table S4:  
*Characteristics of Participants Scoring Zero on Each Performance Measure*

	SPPB	PPME	GCS Composite
N	135	95	40
Age	100.3 (4.1)	100.4 (4.2)	101.1(2.2)
MMSE	12.3 (8.5)	10.3 (8.3)	6.7(8.19)
GDRS	4.7 (1.6)	7.0 (5.0)	5.4(1.6)
Grip (Kg)	6.9 (9.9)	3.6 (4.2)	0
Leg (Kg)	2.2 (3.7)	1.4 (3.5)	0.23(1.2)
BADL	12.6 (9.0)	10.6 (9.0)	5.7 (7.9)
IADL	16.7 (15.8)	13.0 (13.9)	8.3 (13.1)

SPPB = Short Physical Performance Battery; PPME = Physical Performance Mobility Exam; GCS Composite = Georgia Centenarian Study Composite scale; GDRS = Global Deterioration Rating Scale; BADL = DAFS Basic Activities of Daily Living; IADL = DAFS Instrumental Activities of Daily Living

Figure S1  
Information by GCS Composite Score (z-score scaling) for Each Task

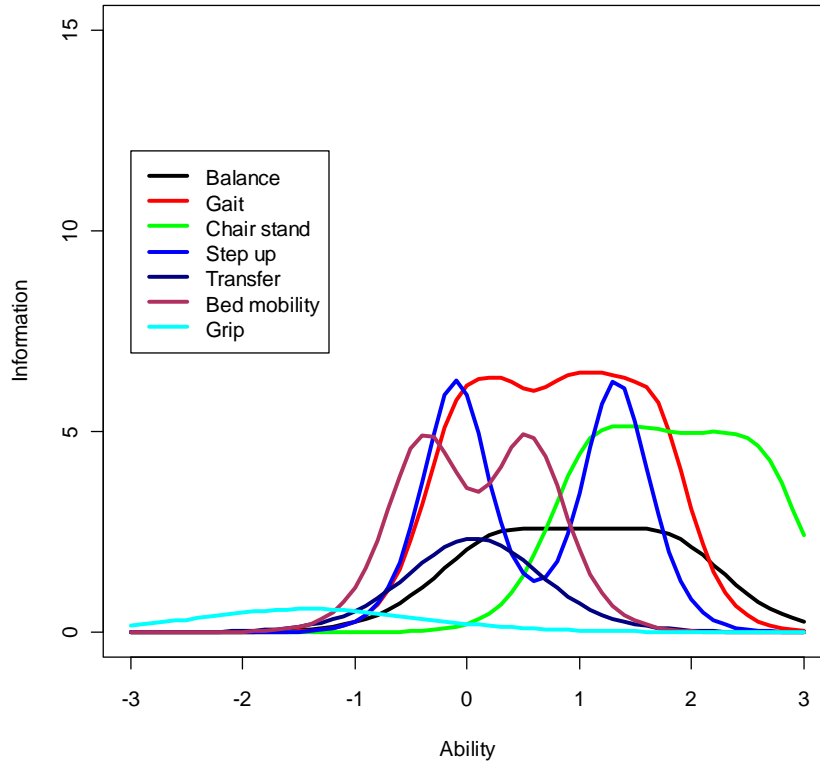


Figure S2  
*Scatterplot of GCS Composite Scores by Short Physical Performance Battery and Physical Performance Mobility Exam*