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Physical Functioning Among Medicare Beneficiaries

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Family: Health, Aging, Finances

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Physical Functioning

- Ability to conduct a variety of activities ranging from self-care to running
- One of strongest predictors of
 - Hospitalizations, institutionalization, and mortality
- This study examines physical functioning items administered in 2010 Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Medicare Survey

Sample

- n = 366,701 Medicare managed care and FFS beneficiaries
- 58% female
- 57% high school education or less
- 14% 18-64; 48% 65-74, 29% 75-84, 9% 85+



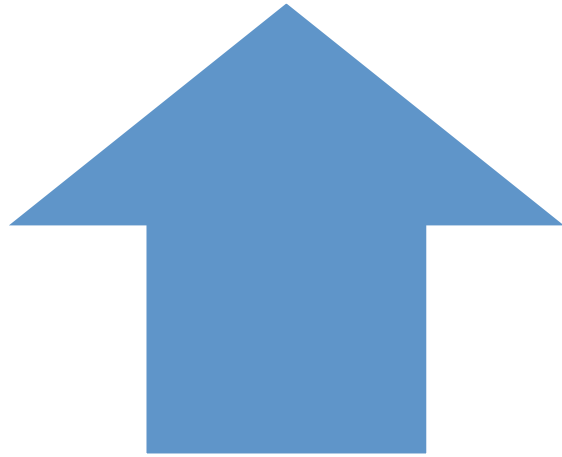
Because of a health or physical problem are you unable to do or have any difficulty doing the following activities?

- Walking?
- Getting in our out of chairs?
- Bathing?
- Dressing?
- Using the toilet?
- Eating?
 - I am unable to do this activity
 - Yes, I have difficulty
 - No, I do not have difficulty

Table 1. Percentage of Medicare beneficiaries (n = 366,701) selecting each response option for the 6 physical functioning items

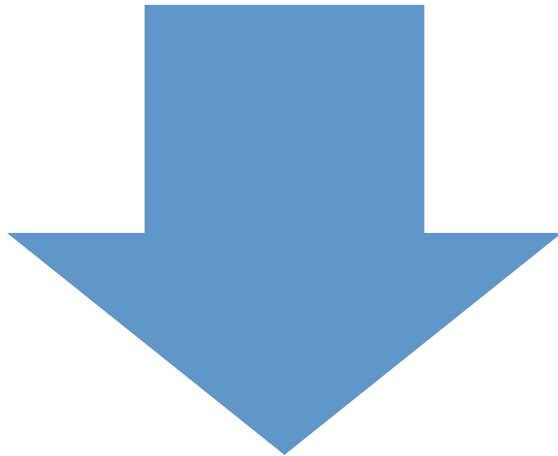
Item	Unable to do	Have difficulty	No difficulty
Walking	4	27	69
Chairs	3	19	78
Bathing	4	11	85
Dressing	3	9	88
Toileting	3	6	91
Eating	3	3	94

Range of Inter-item Correlations



$$r = 0.84$$

Bathing & Dressing



$$r = 0.51$$

Eating and Walking

Coefficient alpha = 0.92

Categorical Confirmatory Factor Analysis Loadings

Physical Functioning	Loading
Walking	0.93
Chairs	0.95
Bathing	0.96
Dressing	0.98
Toileting	0.97
Eating	0.94

Item Parameters (Graded Response Model)

Physical Functioning	Threshold Unable to do	Threshold Have difficulty	Discrimination
Walking	-1.86	-0.55	4.63
Chairs	-1.91	-0.81	5.65
Bathing	-1.72	-1.02	6.34
Dressing	-1.78	-1.10	8.23
Toileting	-1.87	-1.27	7.23
Eating	-1.98	-1.53	4.87

The IRT Procedure

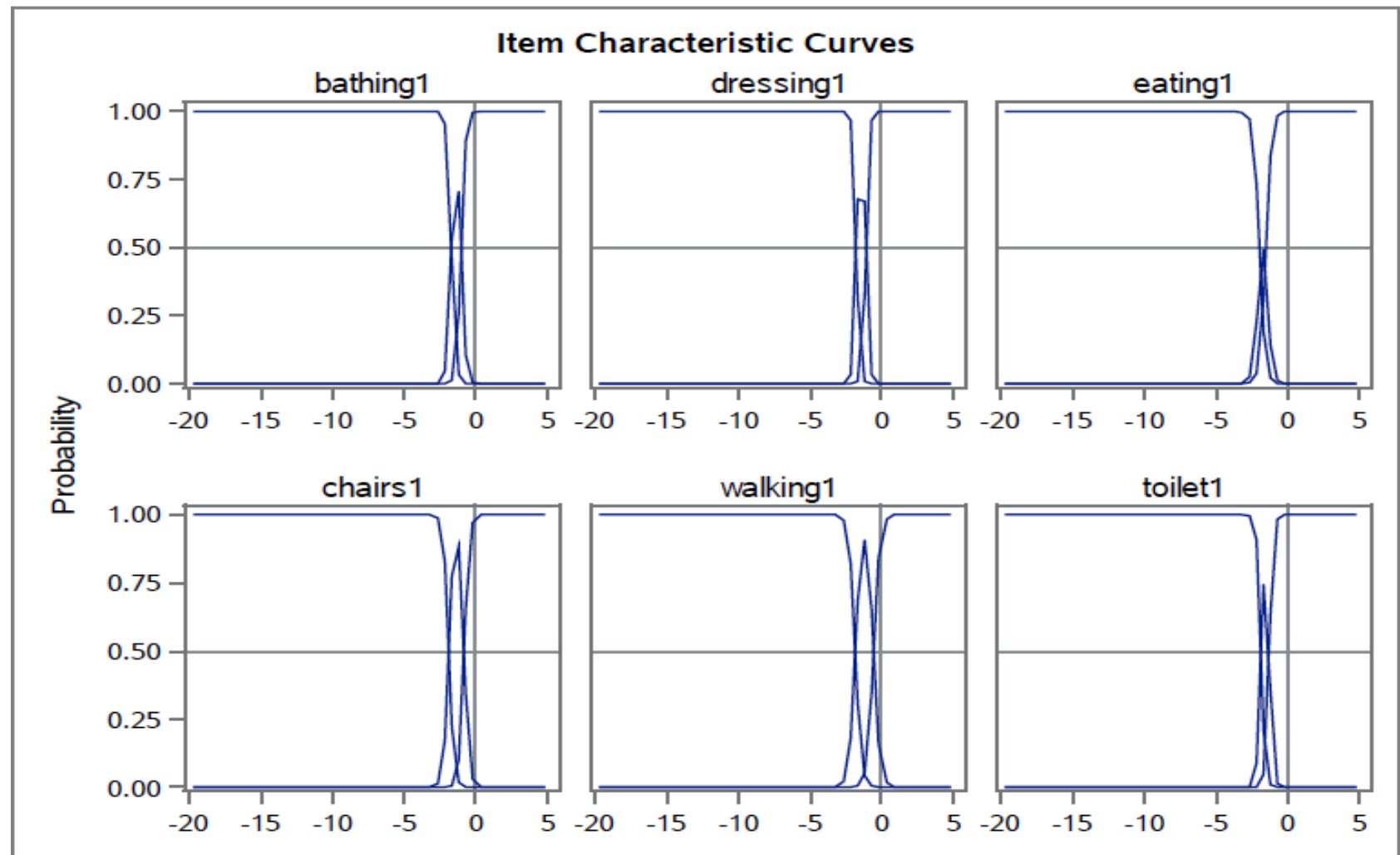
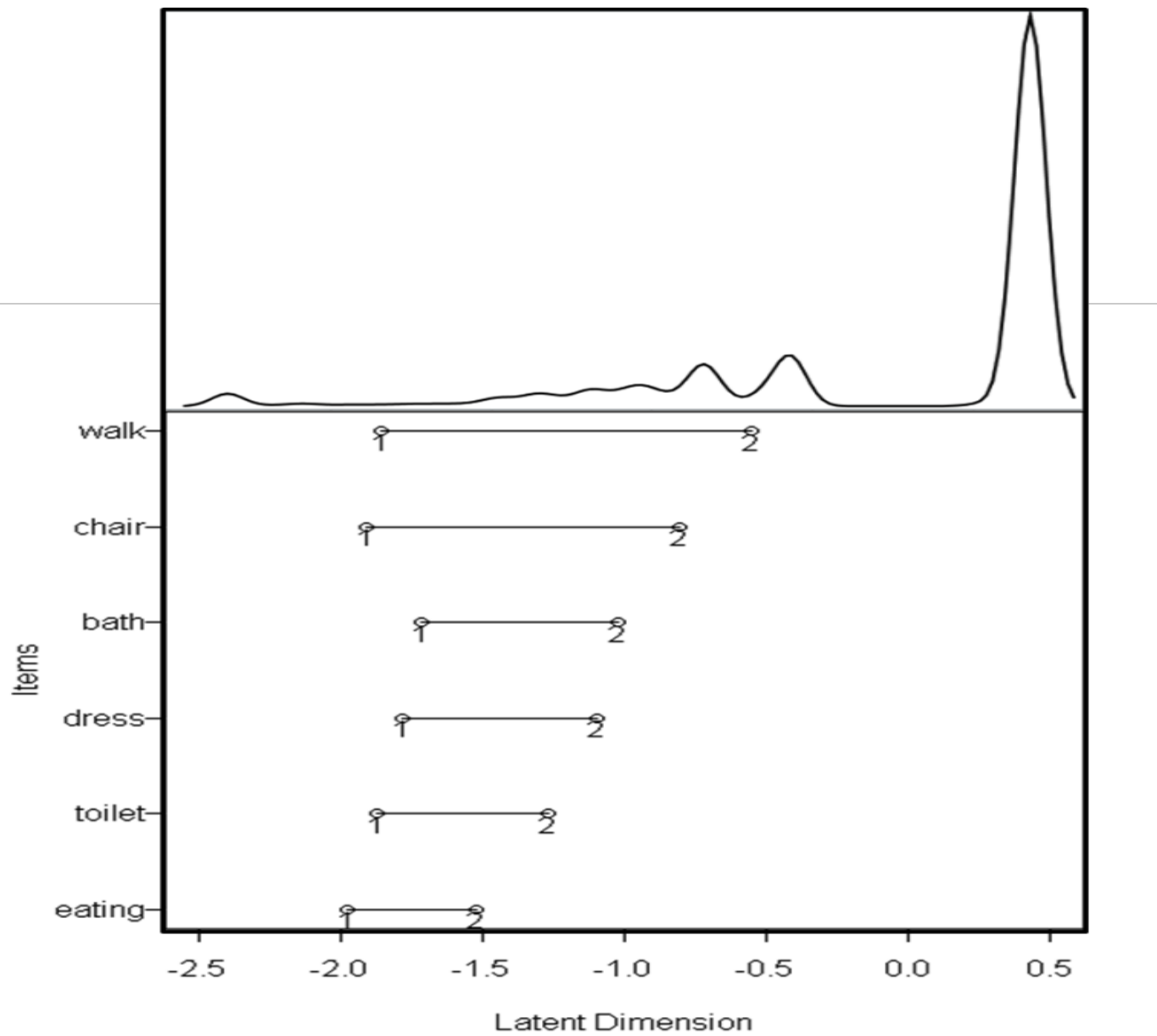
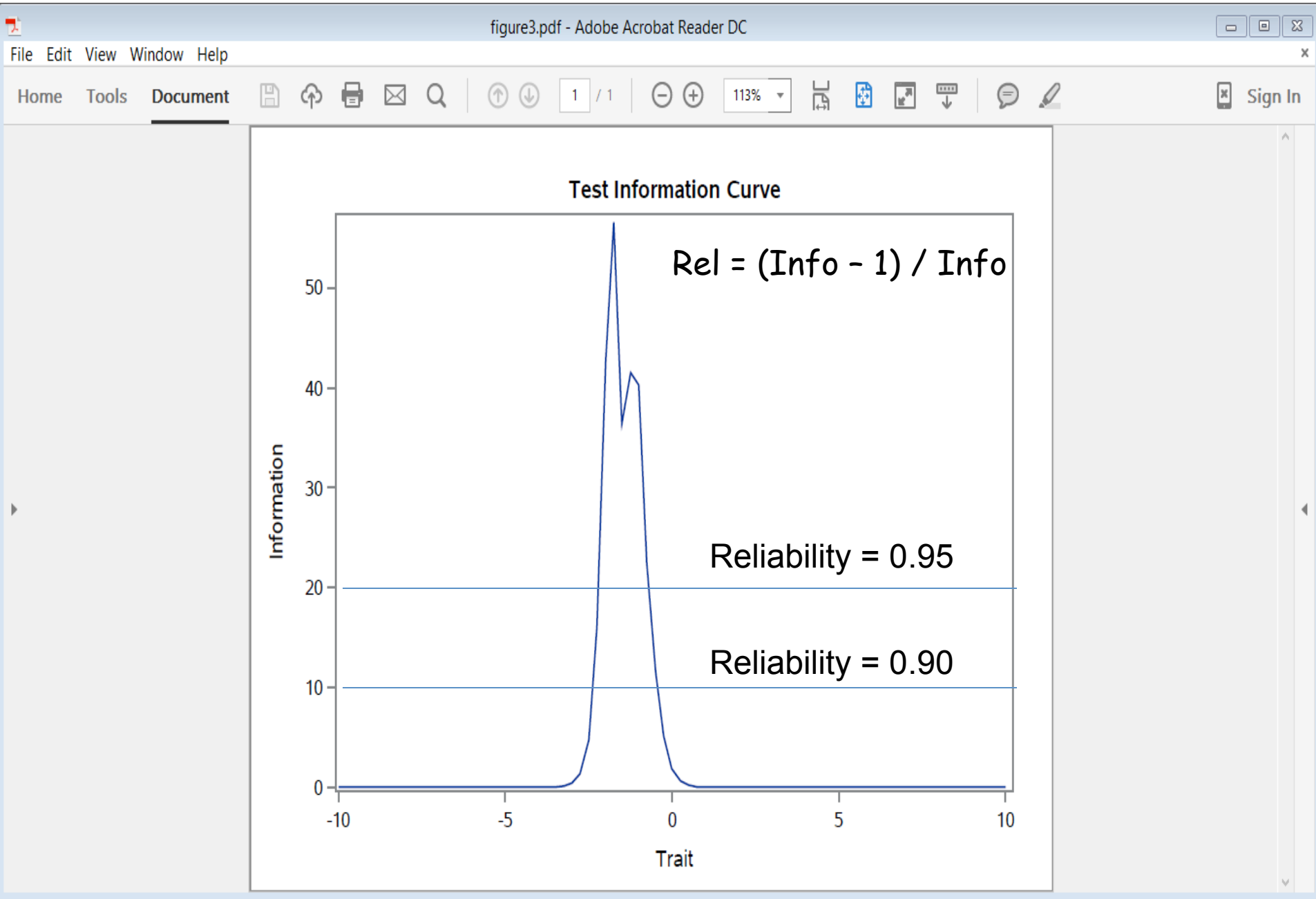


Figure 2. Person-Item Map





Physical Function Scale Correlations

$r = 0.39$ (self-rated general health)

$r = -0.23$ (number of chronic conditions)

Summary

- The 6 physical functioning items target relatively easy activities
- Items representing higher levels of physical functioning are needed for the majority of Medicare beneficiaries.
 - Lifting or carrying groceries
 - Doing chores like vacuuming or yard work
 - Running a short distance

Acknowledgements

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