Online Data Supplement

Disability among Elderly Survivors of Mechanical Ventilation

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APPENDIX 1 – CORE CONSTRUCTION

Rosow Breslau Mobility Difficulty. The mobility difficulty score was calculated by summing beneficiaries responses to three items taken from the Rosow-Breslau scale: stooping, lifting a 10 lbs., extending arms above shoulder, writing, and walking ¼ mile. Each item is rated on a 1-5 scale, (no difficulty, little difficulty, some difficulty, a lot of difficulty, and unable), yielding a score that ranged from 5 to 25. For ease of interpretation, we transformed the scores to a 0-100 scale by subtracting 5, dividing by 20 and multiplying by 100.

ADL Disability. The ADL disability score was constructed from beneficiaries' responses regarding difficulty with common activities of daily living (bathing, dressing, chair transfer, walking and toileting). The MCBS survey collected data on difficulty (yes/no), receipt of assistance, and receipt of standby help only. If a beneficiary indicated they do not do a task, then they were asked specifically if that was because of health reasons. These responses were mapped to categories of assistance as defined by Finch, et al.

In the nursing facility interviews, physical disability was drawn from items on the MDS 2.0 Assessment. The response categories for each ADL were also mapped to categories from Finch et al. Both community and facility mapping are shown on the following figure.

Community Survey	Facility Survey	Naïve Coding	MCBS Category	Finch Category
No Difficulty; Does not receive assistance or standby assistance	Independent	0	No Difficulty	No Assistance
Has difficulty; Does not receive assistance or standby assistance	Supervision	1	Any Difficulty	A Little Assistance
Has difficulty; Receives standby assistance only	Limited Assistance	2	Standby Assistance	A Lot of Assistance
Has difficulty; Receives assistance	Extensive Assistance	3	Receives Help	Complete Assistance
Does not do because of health	Total Dependence	3	Receives Help	Complete Assistance

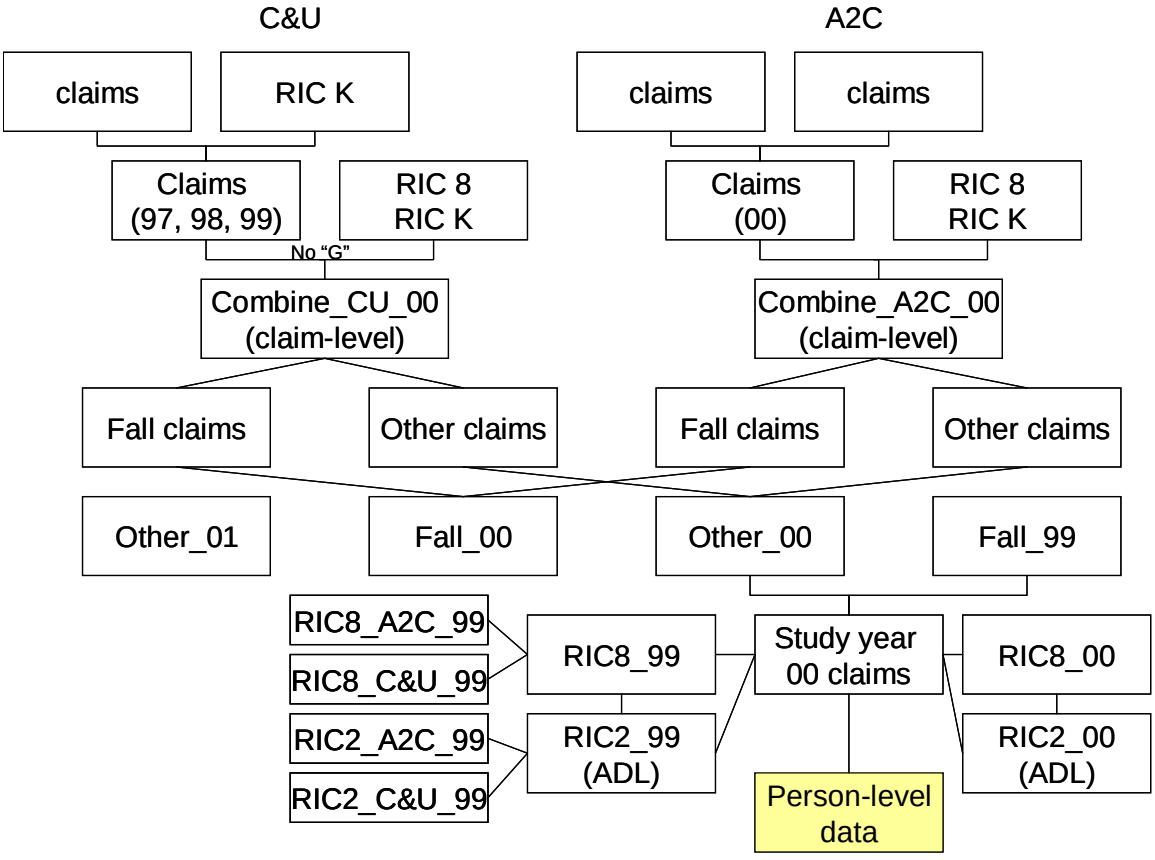
We examined the assumption that 'standby assistance' should map to 'a lot' of assistance by exploring alternate coding schemes. The final approach produced an interpretable gradient and was correlated with a 'naïve' coding schema that approximates the typical approach of counting of ADL difficulties.

Each level of each ADL area is assigned a numeric score, drawn from Finch et al. These scores were derived from a survey of experts in geriatrics and gerontology, and explicitly address the difference in effort required to provide assistance in each task. For example, assisting an individual with dressing is less difficult than toileting. Hence, providing complete assistance with dressing is rated '500' while complete assistance with toileting is rated nearly double '848'. In this way, the final score has interval and ratio scale properties. That is, a one unit change in the scale has the same meaning at every level of the scale. This property is not found on simplistic counts of ADL difficulty. The scores ranged from 0 to 4371. For ease of interpretation, we transformed the scores to a 0-100 scale by dividing by 4371 and multiplying by 100.

APPENDIX 2 – DATA MANAGEMENT

MCBS data management appendix

This appendix summarizes data management for Blue-201002-0301OC.R1. The Figure, below, illustrates the process used to assemble person-level data for one study year, 1999-2000. Each person-level file for one study year was merged to create the 7-year analytic file used in the current study.



Notes:

1. MCBS data older than 1998 are archived on tapes that require specialized equipment for extraction.

2. Data files are not in the same format from year to year and, within years, between files, they change both in structure and content (including different names for the same variables).
3. There are multiple, complex files, from which separate data elements must be extracted to assemble a study cohort. There are two "sets" of data for each calendar year (each of which contains 22 data files (most of which are identically named, and include administrative information, survey responses, and Medicare claims). The cost and use (C&U) set includes people who died during the year (sample includes those "ever enrolled"), the access to care (A2C) drops those who died (sample includes only those "always enrolled"; though this is a slight simplification…if the respondent died after completing the Fall survey, they are retained in the A2C RIC data file [the data file specific to the survey responses] – this is about 1% of the persons in the A2C file). The C&U set includes only the 2nd, 3rd, and 4th year of claims for survey participants over their four years of participation in the panel; one must pull the claims for the participant's 1st year of panel participation from the claims contained in the A2C set.