**Supplemental digital content: Variable Definitions and Sources**

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| **Variable** | **Definition** |
| The Changes in Health, End-stage Disease, Signs and Symptoms Scale (CHESS)1 | Predicts 3-year mortality in LTC, physician activity, medical procedures and or health instability. Scores range from 0 (no health instability) to 5 (very high health instability). |
| Pain scale2 | Records the ebb and flow of pain from the person’s perspective, with 0 indicating no pain and the highest score, 3, representing severe pain. |
| Length of stay (days of stay) | Describes treatment patterns across settings and as an indicator of severity within settings. |
| Bladder and Bowel Incontinence | In mental health settings, means incontinence on 2 out of the last 3 days. In home care, nursing homes and complex continuing care, bladder incontinence refers to incontinence occurring at least twice in the last 7 days; bowel incontinence refers to incontinence occurring at least once in the last 7 days. |
| ADL hierarchy scale3 & IADL tasks4 | IADL self-performance score of 0, 1, 2 or 3+ on the ADL hierarchy scale represented the person’s performance in self-care activities of daily living over the observation period. The four items used to score the scale (0-6) are personal hygiene, toilet transfer, locomotion, and eating.4 |
| Cognitive Performance Scale(CPS)3 | This scale scores 0 for intact cognition, 1 and 2 for borderline intact and mild impairment, 3 and 4 for moderate to moderately severe, and 5 and 6 for severe to very severe. |
| Mobility variables: wheelchair, walked independently, fell in the last 90 days and had unsteady gait. | Wheelchair use records the use of any wheelchair within the last 3 days in mental health settings, or within the last 7 days in home care, nursing home and complex continuing care. Independent walking in the mental health setting means ‘independent walking’ or ‘requiring set up or supervision only 1 to 2 times within the last 3 days.’ Home care settings document independent walking seen within the last 7 days, only if the client requires *no* assistive device and performs independent locomotion inside and outside of the home with set up or supervision 1 or 2 times. Independent bathing means if the client independently bathes or requires set up/help within 7 days. |
| Comprehension variables | ‘Expression’ is used to document the person’s ability to communicate information content, whether verbal or non-verbal. Both the expression and communication codes range from 0 (understood) to 4 (rarely or never understood). |
| Deafblind Severity Index5 | Uses two variables, functional vision and hearing, to develop a severity score ranging from 0 to 5, with higher scores indicating severe impairment in both senses. |
| The Depression Rating Scale (DRS)6 | Evaluates signs and symptoms of depression. A score of 3 or higher on the DRS typically suggests presence of depression and need for further evaluation. |
| ‘Conflict with other’ and ‘Social isolation’ | Indicates factors that may negatively affect the quality and nature of the person’s relationship with family, other clients, and staff. The presence of each factor is coded as 0 (no) and 1 (yes). |
| ‘Use of rehabilitation services’* Physical Therapy
* Occupational Therapy
* Social work
* Psychiatrist
 | Indicates whether the person has been provided with any of the services within the last 7 days. |
| Delirium | Delirium is considered present in mental health settings if the person had a recent onset of being easily distracted and/or demonstrated changes in mental function. In home care, delirium is defined as having a change in mental function over the last 7 days and having an incident of disorientation within the last 90 days. From the MDS 2.0, delirium is present if the person, within the last 7 days, had episodes showing they were easily distracted with varying mental function. Hallucinations and delusions are present if the symptoms occur once in the last 3 days in home care and mental health settings, or once in the last 7 days in MDS 2.0. |
| Aggressive behavior | In mental health and home care settings, aggressive behavior is present if the person exhibited verbal abuse, physical abuse, socially inappropriate behavior, inappropriate sexual behavior or resisted care at least once in the last 3 days. In MDS 2.0, aggressive behavior is present if such behavior occurred at least once in the last 7 days. |

NOTE: The first column shows the variable name and the abbreviation; the second column reports definition and sources.

**References**

1. Hirdes J, Frijters D, Teare G. The MDS-CHESS scale: a new measure to predict mortality in institutionalized older people. *J Am Geriatr Soc*. 2003;51:96-100.
2. Fries BE, Simon SE, Morris JN, Flodstrom C, Bookstein FL. Pain in U.S. nursing homes: validating a pain scale for the Minimum Data Set. *Gerontologist.* 2001;41(2):173-9.
3. Morris JN, Fries BE, Mehr DR, Hawes C, Phillips C, Mor V, Lipsitz LA. MDS cognitive performance scale. *J Gerontol*. 1994;49(4):M174-82.
4. Morris JN, Fries BE, Morris SA. Scaling ADLs within the MDS. *J Gerontol A Biol Sci Med Sci*. 1999;54:M546-53.
5. Guthrie DM, Pitman R, Stolee P, Strong G, Poss J, Tjam EY, Bowman L, Ashworth M, Hirdes JP. Reliability of standardized assessment for adults who are deafblind. *J Rehabil Res Dev.*2011;48:545-54.
6. Bagby RM, Ryder AG, Schuller DR, Marshall MB. The Hamilton Depression Rating Scale: aas the gold standard become a lead weight? *Am J Psychiatry*. 2004;161:2163-77.