

Deficit Accumulation Index

Note: the DAI approach may vary in the type and number of deficits included. The following definition sheet is based on guidance from Searle et al., 2008, “A standard procedure for creating a frailty index.”

Scoring: A frailty index score of 0.2 or greater recognizes a person as approaching a frail state.

Frailty Criterion	Definition
Deficits in health	<p>At least 30-40 deficits – defined as symptoms, signs, disabilities, and diseases – should be selected.</p> <p>Deficits can be included if:</p> <ol style="list-style-type: none"> 1) they are associated with health status 2) the prevalence of the deficit increases with age 3) saturation of the deficit does not occur too early in the life course 4) the deficits cover a range of symptoms (for example, deficits are not solely related to cognition) 5) the same deficits are included when used serially on the same people <p>Deficit variables are scored as binary (0 or 1) or can be graded (e.g., 0, 0.5, 1).</p> <p>The score is expressed as the ratio of deficits present over the total number of deficits included. For example, if the person has 10 deficits present out of 40 deficits total, the index score would equal 10/40 or 0.25.</p> <p>Examples of deficits include:</p> <ul style="list-style-type: none"> • Restricted activity • Disability in Activities Daily Living (ADL) and Instrumental ADL • Impairments in general cognition and physical performance (e.g. impaired grip strength) • Impaired walking) • Co-morbidity • Self-rated health • Depression/mood <p>Please see Table 1 in Searle et al (2008) for a full list of 40 deficits and their proposed scoring: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2573877/</p>

References:

- Searle SD, Mitnitski A, Gahbauer EA, Gill TM, Rockwood K. A standard procedure for creating a frailty index. *BMC Geriatr.* 2008;8:24.
- Rockwood K, Mitnitski A. Frailty in relation to the accumulation of deficits. *J Gerontol A Biol Sci Med Sci.* 2007;62(7):722-727.