

## Derived Variable – Life Space Index (LSI) (Comprehensive Assessment)

The Life Space Index (LSI) module in the CLSA uses the Life-Space Assessment (LSA) (1) as one measure of participants’ mobility within their home and community. The LSA asks about participants’ movements to five life-space levels in the four weeks preceding the assessment, the frequency at which these levels were reached, and what aids, if any, were required to get there.

There is one derived variable (DV) in this module: the **LSA composite score** (1), which takes into account the life-space levels, the frequency of their attainment, and the amount of assistance required to attain those levels. A detailed example of this scoring method can be found in (2). In order to obtain this score, the scores at the five individual life-space levels are first computed and then summed. The LSA composite score ranges in value from 0 (“totally bed-bound”) to 120 (“traveled out of town every day without assistance”). Higher scores indicate higher levels of mobility.

The LSA was administered as part of the Comprehensive assessment.

- (1) Baker PS, Bodner EV, Allman RM. Measuring life-space mobility in community-dwelling older adults. *J Am Geriatr Soc.* 2003 Nov; 51(11):1610-4.
- (2) Peel C, Sawyer Baker P, Roth DL, Brown CJ, Brodner EV, Allman RM. Assessing mobility in older adults: the UAB Study of Aging Life-Space Assessment. *Phys Ther.* 2005 Oct;85(10):1008-119.

### 1) Life-Space Level 1 Partial LSA Score – Temporary Variable

**Derived Variable Name:** LSI\_TLSA1\_COM

**Description:** This variable computes the partial LSA score for life-space level 1. It is not included in the CLSA dataset.

**Based on:** LSI\_ROOM\_COM, LSI\_RMFQ\_COM, and LSI\_RMAID\_COM.

**Derived Variable Specifications:**

Value	Condition(s)	Description	Notes
999	LSI_ROOM_COM = (-8, 9) or LSI_RMFQ_COM = (8, 9) or	At least one of the required questions was not answered	These CLSA participants have already been classified and are

	LSI_RMAID_COM = (8, 9)	(don't know, refusal, missing)	excluded from further classification.
$1 * \text{LSI\_RMFQ\_COM} * (\text{LSI\_RMAID\_COM} + 1) / 2$	LSI_ROOM_COM = 1	Life-space level 1 partial LSA score	(min: 1; max: 8)
0	LSI_ROOM_COM = 2	Life-space level 1 partial LSA score	

## 2) Life-Space Level 2 Partial LSA Score – Temporary Variable

**Derived Variable Name:** LSI\_TLSA2\_COM

**Description:** This variable computes the partial LSA score for life-space level 2. It is not included in the CLSA dataset.

**Based on:** LSI\_OUT\_COM, LSI\_OUTFQ\_COM, and LSI\_OUTAID\_COM.

**Derived Variable Specifications:**

Value	Condition(s)	Description	Notes
99	LSI_OUT_COM = (-8, 9) or LSI_OUTFQ_COM = (8, 9) or LSI_OUTAID_COM = (8, 9)	At least one of the required questions was not answered (don't know, refusal, missing)	These CLSA participants have already been classified and are excluded from further classification.
$2 * \text{LSI\_OUTFQ\_COM} * (\text{LSI\_OUTAID\_COM} + 1) / 2$	LSI_OUT_COM = 1	Life-space level 2 partial LSA score	(min: 2; max: 16)
0	LSI_OUT_COM = 2	Life-space level 2 partial LSA score	

## 3) Life-Space Level 3 Partial LSA Score – Temporary Variable

**Derived Variable Name:** LSI\_TLSA3\_COM

**Description:** This variable computes the partial LSA score for life-space level 3. It is not included in the CLSA dataset.

**Based on:** LSI\_NGHB\_COM, LSI\_NGHBFQ\_COM, and LSI\_NGHB AID\_COM.

**Derived Variable Specifications:**

Value	Condition(s)	Description	Notes
99	LSI_NGHB_COM = (-8, 9) or LSI_NGHBFAQ_COM = (8,9) or LSI_NGHBFAID_COM = (8,9)	At least one of the required questions was not answered (don't know, refusal, missing)	These CLSA participants have already been classified and are excluded from further classification.
$3 * \text{LSI\_NGHBFAQ\_COM} * (\text{LSI\_NGHBFAID\_COM} + 1) / 2$	LSI_NGHB_COM = 1	Life-space level 3 partial LSA score	(min: 3; max: 24)
0	LSI_NGHB_COM = 2	Life-space level 3 partial LSA score	

**4) Life-Space Level 4 Partial LSA Score – Temporary Variable**

**Derived Variable Name:** LSI\_TLSA4\_COM

**Description:** This variable computes the partial LSA score for life-space level 4. It is not included in the CLSA dataset.

**Based on:** LSI\_TOWN\_COM, LSI\_TWNFAQ\_COM, and LSI\_TWNAID\_COM.

**Derived Variable Specifications:**

Value	Condition(s)	Description	Notes
99	LSI_TOWN_COM = (-8, 9) or LSI_TWNFAQ_COM = (8, 9) or LSI_TWNAID_COM = (8, 9)	At least one of the required questions was not answered (don't know, refusal, missing)	These CLSA participants have already been classified and are excluded from further classification.
$4 * \text{LSI\_TWNFAQ\_COM} * (\text{LSI\_TWNAID\_COM} + 1) / 2$	LSI_TOWN_COM = 1	Life-space level 4 partial LSA score	(min: 4; max: 32)
0	LSI_TOWN_COM = 2	Life-space level 4 partial LSA score	

### 5) Life-Space Level 5 Partial LSA Score – Temporary Variable

**Derived Variable Name:** LSI\_TLSA5\_COM

**Description:** This variable computes the partial LSA score for life-space level 5. It is not included in the CLSA dataset.

**Based on:** LSI\_FAR\_COM, LSI\_FARFQ\_COM, and LSI\_FARAID\_COM.

**Derived Variable Specifications:**

Value	Condition(s)	Description	Notes
99	LSI_FAR_COM = (-8, 9) or LSI_FARFQ_COM = (8, 9) or LSI_FARAID_COM = (8, 9)	At least one of the required questions was not answered (don't know, refusal, missing)	These CLSA participants have already been classified and are excluded from further classification.
$5 * \text{LSI\_FARFQ\_COM} * (\text{LSI\_FARAID\_COM} + 1) / 2$	LSI_FAR_COM = 1	Life-space level 5 partial LSA score	(min: 5; max: 40)
0	LSI_FAR_COM = 2	Life-space level 5 partial LSA score	

### 6) Composite LSA Score

**Derived Variable Name:** LSI\_DSCR\_COM

**Description:** This variable sums the partial LSA scores of the five life-space levels to obtain the overall composite LSA score.

**Based on:** LSI\_TLSA1\_COM, LSI\_TLSA2\_COM, LSI\_TLSA3\_COM, LSI\_TLSA4\_COM, and LSI\_TLSA5\_COM.

**Derived Variable Specifications:**

Value	Condition(s)	Description	Notes
999	LSI_TLSA1_COM = 99 or LSI_TLSA2_COM = 99 or LSI_TLSA3_COM = 99 or LSI_TLSA4_COM = 99 or	At least one of the required questions was not answered (don't know, refusal, missing)	



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	LSI_TLSA5_COM = 99		
LSI_TLSA1_COM + LSI_TLSA2_COM + LSI_TLSA3_COM + LSI_TLSA4_COM + LSI_TLSA5_COM	LSI_TLSA1_COM ≠ 99 and LSI_TLSA2_COM ≠ 99 and LSI_TLSA3_COM ≠ 99 and LSI_TLSA4_COM ≠ 99 and LSI_TLSA5_COM ≠ 99	Composite LSA Score	(min: 0 max: 120)