**CSER HARMONIZED MEASURE REPOSITORY: Health Literacy (Adult and Parent Versions)**

| **Template topic** | **Definition/Note** |
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| **Measure name and acronym** | Brief Health Literacy Screening Tool |
| **Source citation for original measure** | * Haun, J., Noland Dodd, V. J., Graham-Pole, J., Rienzo, B., & Donaldson, P. (2009). Testing a Health Literacy Screening Tool: Implications for Utilization of a BRIEF Health Literacy Indicator. Federal Practitioner, 26(12), 24-31.
* Study also reported in: Jolie Haun , Stephen Luther , Virginia Dodd & Patricia Donaldson (2012) Measurement Variation Across Health Literacy Assessments: Implications for Assessment Selection in Research and Practice, Journal of Health Communication, 17:sup3, 141-159, DOI: 10.1080/10810730.2012.712615
* See also: Chew LD, Bradley KA, Boyko EJ. Brief questions to identify patients with inadequate health literacy. Fam Med. 2004 Sep;36(8):588-94. PMID: 15343421 (Source for 3 of the 4 questions)
* See also: Chew LD, Griffin JM, Partin MR, Noorbaloochi S, Grill JP, Snyder A, Bradley KA, Nugent SM, Baines AD, Vanryn M. Validation of screening questions for limited health literacy in a large VA outpatient population. J Gen Intern Med. 2008 May;23(5):561-6. doi: 10.1007/s11606-008-0520-5. PMID: 18335281 (Source for 3 of the 4 questions)
* See also: Wallace LS, Rogers ES, Roskos SE, Holiday DB, Weiss BD. Brief report: Screening items to identify patients with limited health literacy skills. J Gen Intern Med. 2006;21(8):874–877. PMC1831582
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| **Name of construct** | Health literacy |
| **Conceptual definition** | “The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” Ratzan, S. C., and R. M. Parker. 2000. Introduction. In National Library of Medicine current bibliographies in medicine: Health literacy. NLM Pub. No. CBM 2000-1, edited by C. R. Selden, M. Zorn, S. C. Ratzan, and R. M. Parker. Bethesda, MD: National Institutes of Health, U.S. Department of Health and Human Services. Institute of Medicine. 2004. Health literacy: A prescription to end confusion. Washington, DC: National Academy Press.  |
| **Category in CSER framework** | Patient factors |
| **Description of measure** | Self-report of health literacy skills that assesses reading comprehension,need for assistance, verbal comprehension and confidence filling out medical forms; not performance-based, like some other popular measures of health literacy such as the STOFHLA or the REALM |
| **Operational definition of construct** | 3 screening items from Chew et al. assessed participants’ confidence filling out medical forms by themselves, how often they have someone help them read hospital materials, and how often they have problems learning about their medical condition because of difficulty reading hospital materials. Chew and colleagues (2008) state that their approach assesses literacy “based on an individual’s level of self-reported difficulty with understanding information or performing reading tasks they encounter in the health care setting.” A 4th item has been added to assess understanding of what individuals were told about their health, with the goal of assessing “difficulties with auditory health information” to “increase the tool’s validity” (Haun et al., 2009). CSER adopted this 4-item version.  |
| **Summary of changes made to measure for CSER (“CSER-adapted scale”), if any** | * Item 1: “Hospital materials” changed to “medical materials” to apply across sites and examples of people who may have helped read materials added.
* Item 2: “medical condition” changed to “medical conditions”
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| **Number of items**  | Original scale: 4 |
| CSER adapted: Same as original |
| **Subscales and items per subscale**  | Original scale: No subscales (Measure is a single, 4-item scale) |
| CSER adapted: Same as original |
| **Response scale (including anchor labels)** | Original scale: 5-point Likert scaleItems 1-3: 1=Always, 2=Often, 3=Sometimes, 4=Occasionally, 5=Never Item 4: 1=Not at all, 2=A little bit, 3=Somewhat, 4=Quite a bit, 5=Extremely |
| CSER adapted: Same as original |
| **Scoring instructions**  | Original Scale: Sum responses to yield a possible score of 4-20; no known established method for handling missing data. |
| CSER adapted: Same as original; recommended rule for missing data: Require at least 2 responses of 4, and use mean imputation for missing item(s). |
| **Validated cutoff scores, if any** | 4-12 = Inadequate13-16 = Marginal17-20 = AdequateNote: According to Haun et al., 2009, these cutoffs were “Based on the previous evaluations of the first three questions” (cited Chew et al, 2004 and Wallace et al., 2006) However, they also state that “ANOVA results indicated that the three proposed BRIEF levels were significantly different from one another on the REALM (F score = 28.63, P < .0001) and the STOFHLA (F score = 35.32, P < .0001). Posthoc Tukey analyses suggest all levels were significantly different at P < .0001.” |
| **Norms (if available)** | Not available |
| **Contact for permission to use/adapt (associated cost)** | No need to get permission. No cost to use. Corresponding author of source article is Jolie Haun, Jolie.Haun@va.gov. |
| **Administration modes** | Paper and pencil, interview |
|  **Original measure languages available**  | English |
| **Evidence for reliability (provide type and values)** | .77 Cronbach alpha (Haun et al., 2012) |
| **Evidence for validity (provide type and values if available)** | CSER data being collected. Haun et al., 2009, validated scale in sample of 378 veterans (mostly male adults) in the southeast US, aged 23-89 with range of education levels (45% high school or less) and, to a lesser extent, race/ethnic backgrounds (74% White, 18% Black, 3% Latino, 3% Native American, 1% Other). * **Lack of convergent validity?** - BRIEF less likely categorize people as having adequate health literacy and more likely to categorize people as being of inadequate or marginal health literacy than STOFHLA and REALM. As noted by authors “At present, it cannot be determined if the discrepancies resulted from error in the BRIEF or from error in the REALM and the STOFHLA, although these discrepancies probably are related to the tools’ measurement of slightly different aspects of health literacy.”
* **Convergent Validity** - Pearson correlations and comparison of AUROC values, and sensitivity/specificity comparisons, shown in tables, below.

* **Nomological validity** - Also note: Haun et al., 2015, BMC Health Services Research, 15:249, https://doi.org/10.1186/s12913-015-0887-z, reported implications of health literacy on health care utilization and costs: “In a study of 92,749 veterans with service utilization from 2007–2009, average per patient cost for those with inadequate and marginal health literacy was significantly higher ($31,581 [95 % CI: $30,186 - $32,975]; $23,508 [95 % CI: $22,749 - $24,268]) than adequate health literacy ($17,033 [95 % CI: $16,810 - $17,255]). Estimated three-year cost associated with veterans’ with marginal and inadequate health literacy was $143 million dollars more than those with adequate health literacy.”
 |
| **Evidence for sensitivity to change** | CSER data being collected. No evidence for sensitivity to change found, although this lack of evidence is relatively irrelevant given that this is likely to be a stable construct that would not be expected to change without substantial, focused intervention.  |
| **Relevant references in genetics or genomics** | Hagger MS, Hardcastle SJ, Hu M, Kwok S, Lin J, Nawawi HM, Pang J, Santos RD, Soran H, Su TC, Tomlinson B, Watts GF. Health literacy in familial hypercholesterolemia: A cross-national study. Eur J Prev Cardiol. 2018 Jun;25(9):936-943. doi: 10.1177/2047487318766954. PMID: 29592531 (Note: used 3-item Chew et al measure) |

**Paste original scale below**



**Paste CSER adaptation below**

1. How often do you have someone (like a family member, friend hospital/clinic worker or caregiver) help you read medical materials?

| **Always****◻** | **Often****◻** | **Sometimes****◻** | **Occasionally****◻** | **Never****◻** |
| --- | --- | --- | --- | --- |

2. How often do you have problems learning about your medical conditions because of difficulty understanding written information?

| **Always****◻** | **Often****◻** | **Sometimes****◻** | **Occasionally****◻** | **Never****◻** |
| --- | --- | --- | --- | --- |

3. How often do you have a problem understanding what is told to you about your medical condition?

| **Always****◻** | **Often****◻** | **Sometimes****◻** | **Occasionally****◻** | **Never****◻** |
| --- | --- | --- | --- | --- |

4. How confident are you filling out medical forms by yourself?

| **Not at all****◻** | **A little bit****◻** | **Somewhat****◻** | **Quite a bit****◻** | **Extremely****◻** |
| --- | --- | --- | --- | --- |

**Paste or list CSER site-specific adaptation/deviation below**