

About the Measure

Domain:	Social Determinants of Health
Measure:	Health Literacy
Definition:	This questionnaire is used to assess an adult’s health literacy level, the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.
Purpose:	This measure can be used to evaluate an individual’s health literacy level. Low health literacy is associated with not understanding health and disease information, difficulties following medical instructions and scheduling preventive and routine appointments, increased hospitalizations and medical costs, and ultimately higher mortality rates.
Essential PhenX Measures:	Current Age Current Educational Attainment
Related PhenX Measures:	Reading Comprehension
Measure Release Date:	

About the Protocol

Protocol Release Date:	
PhenX Protocol Name:	Health Literacy
Keywords:	Agency for Healthcare Research and Quality, English Speakers, Health Literacy, Health Literacy Screening, National Institute of Dental and Craniofacial Research, Short Assessment of Health Literacy-English (SAHL-E), Social Determinants of Health, University of North Carolina at Chapel Hill
Protocol Name from Source:	Short Assessment of Health Literacy-English (SAHL-E), Health Literacy Screening Questions from Chew, Bradley, and Boyko (2004)
Description:	The Short Assessment of Health Literacy-English (SAHL-E) includes 18 interviewer-administered items designed to assess an English-speaking adult’s ability to read and understand common medical terms. The test could help health professionals estimate the adult’s health literacy level. The interviewer shows the respondent a series of laminated 4” x 5” flash cards, with each card containing a medical term printed in boldface on the top and the two association words (i.e., the key and the distracter) at the bottom. Responses are summed to achieve the total SAHL-E score. A score less than or equal to 14 represents the cutoff point for low health literacy, or low health-related

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	reading ability. An additional health literacy screening question, useful for surveys with space constraints, asks how confident the respondent is in completing medical forms.
Specific Instructions:	Administration of the Short Assessment of Health Literacy-English is facilitated by using laminated 4" x 5" flash cards, with each card containing a medical term printed in boldface on the top and the two association words (i.e., the key and the distracter) at the bottom.

<p>Protocol:</p>	<p>Short Assessment of Health Literacy-English (SAHL-E)</p> <p>Directions to the Interviewer:</p> <ol style="list-style-type: none"> 1. Before the test, the interviewer should say to the examinee: <i>“I’m going to show you cards with 3 words on them. First, I’d like you to read the top word out loud. Next, I’ll read the two words underneath and I’d like you to tell me which of the two words is more similar to or has a closer association with the top word. If you don’t know, please say ‘I don’t know’. Don’t guess.”</i> 2. Show the examinee the first card. 3. The interviewer should say to the examinee: <i>“Now, please, read the top word out loud.”</i> 4. The interviewer should have a clipboard with a score sheet to record the examinee’s answers. The clipboard should be held such that the examinee cannot see or be distracted by the scoring procedure. 5. The interviewer will then read the key and distracter (the two words at the bottom of the card) and then say: <i>“Which of the two words is most similar to the top word? If you don’t know the answer, please say ‘I don’t know’.”</i> 6. The interviewer may repeat the instructions so that the examinee feels comfortable with the procedure. 7. Continue the test with the rest of the cards. 8. A correct answer for each test item is determined by both correct pronunciation and accurate association. Each correct answer gets one point. Once the test is completed, the interviewer should tally the total points to generate the SAHL-E score. <p>A score between 0 and 14 suggests the examinee has low health literacy.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Stem</th> <th colspan="3">Key or Distracter</th> </tr> </thead> <tbody> <tr> <td>1. kidney</td> <td><input type="checkbox"/> urine</td> <td><input type="checkbox"/> fever</td> <td><input type="checkbox"/> don’t know</td> </tr> <tr> <td>2. occupation</td> <td><input type="checkbox"/> work</td> <td><input type="checkbox"/> education</td> <td><input type="checkbox"/> don’t know</td> </tr> <tr> <td>3. medication</td> <td><input type="checkbox"/> instrument</td> <td><input type="checkbox"/> treatment</td> <td><input type="checkbox"/> don’t know</td> </tr> <tr> <td>4. nutrition</td> <td><input type="checkbox"/> healthy</td> <td><input type="checkbox"/> soda</td> <td><input type="checkbox"/> don’t know</td> </tr> <tr> <td>5. miscarriage</td> <td><input type="checkbox"/> loss</td> <td><input type="checkbox"/> marriage</td> <td><input type="checkbox"/> don’t know</td> </tr> <tr> <td>6. infection</td> <td><input type="checkbox"/> plant</td> <td><input type="checkbox"/> virus</td> <td><input type="checkbox"/> don’t know</td> </tr> </tbody> </table>	Stem	Key or Distracter			1. kidney	<input type="checkbox"/> urine	<input type="checkbox"/> fever	<input type="checkbox"/> don’t know	2. occupation	<input type="checkbox"/> work	<input type="checkbox"/> education	<input type="checkbox"/> don’t know	3. medication	<input type="checkbox"/> instrument	<input type="checkbox"/> treatment	<input type="checkbox"/> don’t know	4. nutrition	<input type="checkbox"/> healthy	<input type="checkbox"/> soda	<input type="checkbox"/> don’t know	5. miscarriage	<input type="checkbox"/> loss	<input type="checkbox"/> marriage	<input type="checkbox"/> don’t know	6. infection	<input type="checkbox"/> plant	<input type="checkbox"/> virus	<input type="checkbox"/> don’t know
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7. alcoholism	<input type="checkbox"/> addiction	<input type="checkbox"/> recreation	<input type="checkbox"/> don't know
8. pregnancy	<input type="checkbox"/> birth	<input type="checkbox"/> childhood	<input type="checkbox"/> don't know
9. seizure	<input type="checkbox"/> dizzy	<input type="checkbox"/> calm	<input type="checkbox"/> don't know
10. dose	<input type="checkbox"/> sleep	<input type="checkbox"/> amount	<input type="checkbox"/> don't know
11. hormones	<input type="checkbox"/> growth	<input type="checkbox"/> harmony	<input type="checkbox"/> don't know
12. abnormal	<input type="checkbox"/> different	<input type="checkbox"/> similar	<input type="checkbox"/> don't know
13. directed	<input type="checkbox"/> instruction	<input type="checkbox"/> decision	<input type="checkbox"/> don't know
14. nerves	<input type="checkbox"/> bored	<input type="checkbox"/> anxiety	<input type="checkbox"/> don't know
15. constipation	<input type="checkbox"/> blocked	<input type="checkbox"/> loose	<input type="checkbox"/> don't know
16. diagnosis	<input type="checkbox"/> evaluation	<input type="checkbox"/> recovery	<input type="checkbox"/> don't know
17. hemorrhoids	<input type="checkbox"/> veins	<input type="checkbox"/> heart	<input type="checkbox"/> don't know
18. syphilis	<input type="checkbox"/> contraception	<input type="checkbox"/> condom	<input type="checkbox"/> don't know

Health Literacy Screening Question

19. How confident are you filling out medical forms by yourself?
- 1 Extremely
 - 2 Quite a bit
 - 3 Somewhat
 - 4 A little bit
 - 5 Not at all

Selection Rationale:	The Short Assessment of Health Literacy-English (SAHL-E) protocol was selected because of its good reliability and validity, ease of administration, endorsement by the Agency for Healthcare Research and Quality, and availability in Spanish and English. An additional health literacy screening question from Chew, Bradley, and Boyko (2004) was added following the SAHL-E questionnaire.
Source:	<p>Short Assessment of Health Literacy-English Lee, S.-Y. D., Stucky, B. D., & Lee, J. Y. (2010). Short assessment of health literacy–Spanish and English: A comparable test of health literacy for Spanish and English speakers. <i>Health Services Research, 45</i>(4), 1105–1120. Appendix SA6–SA7.</p> <p>Health Literacy Screening Question Chew, L. D., Bradley, K. A., & Boyko, E. J. (2004). Brief questions to identify patients with inadequate health literacy. <i>Family Medicine, 36</i>(8), 588–594. Appendix 1, question 14.</p>
Availability:	Publicly available
Life Stage:	Adult
Language:	English, Spanish
Participant:	Adults
Personnel and Training Required:	The interviewer must be trained to conduct personal interviews with individuals from the general population. The interviewer must be trained and found to be competent (i.e., tested by an expert) at the completion of personal interviews. The interviewer should be trained to prompt respondents further if a “don’t know” response is provided.
Equipment Needs:	The PhenX Working Group acknowledges that these questions can be administered in a computerized or noncomputerized format (i.e., paper-and-pencil instrument). Computer software is necessary to develop computer-assisted instruments. The interviewer will require a laptop computer or handheld computer to administer a computer-assisted questionnaire.
General References:	<p>Chew, L. D., Griffin, J. M., Partin, M. R., Noorbaloochi, S., Grill, J. P., Snyder, A., ... Vanryn, M. (2008). Validation of screening questions for limited health literacy in a large VA outpatient population. <i>Journal of General Internal Medicine, 23</i>(5), 561–566.</p> <p>Nutbeam, D., McGill, B., & Premkumar, P. (2018). Improving health literacy in community populations: A review of progress. <i>Health Promotion International, 33</i>(5), 901–911.</p>
Mode of Administration:	Interviewer-administered questionnaire

Derived Variables:	None										
Requirements:	<table border="1"><thead><tr><th data-bbox="493 325 1114 405">Requirements Category</th><th data-bbox="1114 325 1414 405">Required (Yes/No):</th></tr></thead><tbody><tr><td data-bbox="493 405 1114 459">Major equipment</td><td data-bbox="1114 405 1414 459">No</td></tr><tr><td data-bbox="493 459 1114 514">Specialized training</td><td data-bbox="1114 459 1414 514">No</td></tr><tr><td data-bbox="493 514 1114 590">Specialized requirements for biospecimen collection</td><td data-bbox="1114 514 1414 590">No</td></tr><tr><td data-bbox="493 590 1114 665">Average time of greater than 15 minutes in an unaffected individual</td><td data-bbox="1114 590 1414 665">No</td></tr></tbody></table>	Requirements Category	Required (Yes/No):	Major equipment	No	Specialized training	No	Specialized requirements for biospecimen collection	No	Average time of greater than 15 minutes in an unaffected individual	No
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Annotations for Specific Conditions:	No annotations at this time										
Process and Review:	The Expert Review Panel has not reviewed this measure yet.										