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| **Domain:** | Speech and Hearing |
| **Measure:** | Stuttering |
| **Definition:** | This measure assesses the severity of the respondent's stuttering. |
| **Purpose:** | This measure is used to quantify stuttering. |
| **Essential PhenX Measures:** | Current Age |
| **Related PhenX Measures:** |  |
| **Collections:** |  |
| **Keywords:** | Stuttering, SSI-4, Stuttering Severity Instrument, Recorded speech sample, proprietary, Speech and Hearing |

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| **Protocol Release Date:** | October 8, 2010 |
| **PhenX Protocol Name:** | Stuttering |
| **Protocol Name from Source:** | This section will be completed when reviewed by an Expert Review Panel. |
| **Description:** | The Stuttering Severity Instrument - Fourth Edition (SSI-4) is an interviewer-administered test that records a sample of the respondent's speech. The Computerized Scoring of the Stuttering Severity (Version 2; CSSS-2.0) software is provided to facilitate the calculation of frequency and duration of stuttering dysfluencies. The software automatically produces a record of the percentage of syllables stuttered (frequency) and the duration of the three longest stuttering events. |
| **Specific Instructions:** | The Stuttering Severity Instrument - Fourth Edition (SSI-4) is a proprietary protocol and administration requires a licensing agreement from Pro-Ed. Researchers should complete and return an application to testquestion@pro-ed.com |
| **Protocol:** | **Summary of the Stuttering Severity Instrument - Fourth Edition**  Respondents are asked to describe their job or school and read a short passage (or describe pictures if they cannot read). The examiner records the speech and scores the respondent on stuttering frequency, stuttering duration, and physical concomitants across four categories.  **Scoring Instructions**  Frequency is expressed in percentage of syllables stuttered and is converted to scale scores of 2–18. Duration is timed to the nearest tenth of a second and is converted to scale scores of 2–18. The four types of physical concomitants are scored and converted to scale scores of 0–20. A total score is obtained from the frequency and duration of stuttering dysfluencies, the score of physical concomitants, and the estimation of speech naturalness. This total score is ranked according to age-specific population norms and is used to assign a verbal descriptor of stuttering severity, ranging from very mild to very severe.  Stuttering Severity Instrument - Fourth Edition (SSI-4). Copyright © 2009 Pro-Ed, Incorporated. All Rights Reserved. |
| **Selection Rationale:** | The Stuttering Severity Instrument - Fourth Edition (SSI-4) was selected because it is a widely used, validated protocol that can be easily administered and includes normed data to assist scoring. |
| **Source:** | Riley, G.D. (2009). Stuttering Severity Instrument - Fourth Edition (SSI-4). Austin, TX: PRO-ED, Inc.  The Stuttering Severity Instrument - Fourth Edition (SSI-4) is a proprietary instrument and can be obtained through:  Pro-Ed, Inc. Attn: Customer Service 8700 Shoal Creek Boulevard Austin, Texas 78757 Telephone: 800-897-3202 Email: info@proedinc.com |
| **Life Stage:** | Child Adolescent Adult |
| **Language of source:** | English |
| **Participant:** | Children, adolescents, and adults ages 2 years and older |
| **Personnel and Training Required:** | The Stuttering Severity Instrument - Fourth Edition (SSI-4) can be administered by trained research assistants. Examiners should have formal training in the ethical administration, scoring, and interpretation of clinical assessments. Additionally, investigators are encouraged to have quality control procedures in place to maintain consistency across examiners. |
| **Equipment Needs:** | The interviewer will need a copy of the Stuttering Severity Instrument - Fourth Edition (SSI-4) test record and a frequency computation form as well as audio recording equipment to record the speech sample. The interviewer will also need the Computerized Scoring of Stuttering Severity (CSSS-2.0) software to score the recorded speech sample. |
| **Standards:** | |  |  |  |  | | --- | --- | --- | --- | | **Standard** | **Name** | **ID** | **Source** | | Common Data Element (CDE) | Speech Stutter Assessment Description Text | 3139260 | [CDE Browser](https://cdebrowser.nci.nih.gov/CDEBrowser/search?elementDetails=9&FirstTimer=0&PageId=ElementDetailsGroup&publicId=3139260&version=1.0) | | Logical Observation Identifiers Names and Codes (LOINC) | Stuttering proto | 62996-4 | [LOINC](http://s.details.loinc.org/LOINC/62996-4.html?sections=Web) | |
| **General references:** | Kang, C., Riazuddin, S., Mundorff, J., Krasnewich, D., Friedman, P., Mullikin, J. C., & Drayna, D. (2010). Mutations in the lysosomal enzyme-targeting pathway and persistent stuttering. *New England Journal of Medicine, 362,* 677–685. |
| **Mode of Administration:** | Interviewer-administered questionnaire |
| **Derived Variables:** | None |
| **Requirements:** | |  |  | | --- | --- | | **Requirement Category** | **Required** | | Major equipment | No | | Specialized training | No | | Specialized requirements for biospecimen collection | No | | Average time of greater than 15 minutes in an unaffected individual | Yes | |
| **Process and Review:** | This section will be completed when reviewed by an Expert Review Panel. |