

## **Reliability and Validity of a Fruit and Vegetable Screening Measure for Adolescents**

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**Purpose:** To develop a brief measure of adolescent fruit and vegetable consumption evaluated for reliability and validity.

**Methods:** In a three study series, we evaluated the test-retest reliability and concurrent validity of two fruit and vegetable measures (brief and composite) and compared the better measure to the four-item Youth Risk Behavior Survey (YRBS) fruit and vegetable scale. A 3-day food record served as the validity criterion. Participants were sixth through twelfth grade students recruited from schools in Pittsburgh, PA and San Diego, CA.

**Results:** The two-item brief measure was selected as the best measure. The brief measure was reliable (intraclass correlation = .68) and more strongly correlated with 3-day food record data ( $r = .23, p < .01$ ) as compared to the YRBS fruit and vegetable scale ( $r = .04, p = .67$ ). Correct classification rate (63%) and specificity (63%) were good. Sensitivity (33%) was lower indicating some participants who met the 5 a day guideline were misclassified.

**Conclusions:** The modified brief measure outperformed the longer YRBS scale and is recommended for assessment of adolescent fruit and vegetable consumption, although improvements in classification are still needed.