

The NIH Toolbox for the Assessment of Neurological and Behavioral Function

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Abstract

At present, there is little uniformity among the measures used to assess neurological function and behavioral health, making comparisons between studies and combining data from multiple studies problematic. The NIH Toolbox, funded by the NIH Blueprint for Neuroscience Research, is intended to address this problem by providing a battery of brief assessment tools that can be used as a form of 'common currency' across diverse study designs and populations, with a particular emphasis on longitudinal epidemiologic studies. The Toolbox includes measures, in English and Spanish, of multiple areas of emotional, cognitive, sensory and motor function in 3 – 85 year olds. The areas assessed by the Toolbox were chosen through an iterative process that included significant end-user input. Measures were then newly developed or assembled from existing instruments by multi-disciplinary teams. Development was guided by consideration of end-user preferences for cost, brevity and other attributes. All instruments were reviewed for accessibility, multicultural, translatability and other concerns and demonstrated convergent and discriminant validity and test-retest reliability in a series of validation studies. Collection of normative values from a nationally representative sample of 4200 individuals (ages 3- 85) is currently underway. The NCS contributed funding to this effort so as to include pregnant women and additional mothers and children. The resultant integrated assessment instrument, with its focus on multiple indicators of neurological and behavioral health functioning, will serve as a national resource for NCS, the scientific community and across the NIH.