


**NIH Toolbox**  
Assessment of Neurological and Behavioral Function

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## Building the Toolbox: Timeline and Operational Structure

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October 27, 2008



For more information, please visit [www.nihtoolbox.org](http://www.nihtoolbox.org)  
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### Phase I (September 2006-Present)



- Domain and Sub-domain selection
- Instrument Selection
- Pediatric Option
- Instrument Development

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### Toolbox Domains from RFP



COGNITION	EMOTION
MOTOR	SENSATION

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## Instrument Selection



- Candidate measures generated from lit reviews and expert input
- Instrument Library
  - 1,300 instruments
  - 557 digital copies of instruments and/or articles
- Measures systematically reviewed

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## Selection Criteria



- Applicable across the age span
- Intellectual Property
- Psychometrically sound
- Brief, easy to use
- Applicable in variety of settings and with different subgroups
- Preference for instruments already validated and normed

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## Draft Development Plans



- For each instrument
- Identification of development experts

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## Pediatric Option Approved



- Phase I survey and development activities included assessment of instruments for use in children and adolescents
- Earlier this year, the Directors of the NIH Blueprint for Neuroscience Research approved Phase II validation

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## Instrument Development



- Generate additional items and tasks to insure range of trait and age coverage
- Pre-testing of new items and tasks

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## Phase IIA (2008-2009)



- Calibration of items for CAT instruments
- Validation testing of new instruments
- Concurrent validation with legacy instruments

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## Phase IIA (2008-2009)



- Final instrument selection
- Spanish translations
- Development of single technology platform
- Materials production

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## Phase IIB (2010-2011)



- National Norming Study
  - National random sample
  - N=5,800
  - 50% Spanish, 50% English
  - Ages 3-85
- All primary batteries administered to entire sample

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## Phase IIC (2011)



- Calculate scoring crosswalks with legacy instruments
- Development of Technical Manual
- Delivery of final Toolbox at Public Conference

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## Organizational Structure



- ♦ **Steering Committee (monthly)**
  - ♦ Executive Committee
  - ♦ Domain Team Principal Investigators
  - ♦ Lead Epidemiologists and Analysts
  - ♦ Contract Project Officer
- ♦ **NIH Project Team (monthly)**

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## Nine Domain Teams



- ♦ 1-2 Lead Scientists with content expertise
- ♦ Domain Manager from CORE
- ♦ Additional consultants with content expertise (adult & pediatric)
- ♦ NIH Project Team Member
- ♦ Epi/Biostat Team Representative

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## Instrument Development Teams



*(Sub-committees to each of the Domain Teams)*

- ♦ Cognition (4)
- ♦ Emotion (4)
- ♦ Motor (2)
- ♦ Sensory
  - ♦ Vestibular Balance (2)
  - ♦ Taste (1)
  - ♦ Audition (3)
  - ♦ Somatosensation (2)
  - ♦ Vision (2)
  - ♦ Olfaction (2)

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## General Sub-committees



- Epi Biostat (Richard Havlik & Kathy Yost)
- Analysis Team (Ron Hays)

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## Task Forces



Accessibility	Data Management
Pediatrics	Graphics Specs
Geriatrics	Computer Hardware
Voice	
Cross Cultural	
Spanish	

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## CORE Management Committee



Executive Committee	Operations
Domain Managers	Instrument Librarian
Communications	
Technology	
Translations	

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## By the numbers



- ◆ Established rich collaborative network
  - ◆ 242 named personnel
  - ◆ 126 consultants
  - ◆ 19 subcontracts
- ◆ Held over 500 team meetings to date

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## How to Keep up to Date with the NIH Toolbox



- ◆ [www.nihtoolbox.org](http://www.nihtoolbox.org)
- ◆ Quarterly newsletter
  - ◆ Distribution: 400 copies
  - ◆ Available on the website



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## Awareness/Impact



- ◆ Requests for Information (RFI)
- ◆ Conference Presentations
  - ◆ 12 to date
    - ◆ American Academy of Audiology
    - ◆ International Conference on Alzheimer's Disease
    - ◆ International Neuropsychological Society
    - ◆ Society of Behavioral Medicine
  - ◆ 10 scheduled over next 12 months
- ◆ Journal articles in process



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## Early Adopters



- Collaborative Studies
  - Limited early availability in late 2009
- Full availability is scheduled for late 2011

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