


NIH Toolbox
Assessment of Neurological and Behavioral Function

Building the Toolbox: Timeline and Operational Structure


Richard C. Gershon, PhD
Center on Outcomes, Research and Education
Northwestern University
October 27, 2008



For more information, please visit www.nihtoolbox.org
Richard C. Gershon, PhD, PI gershon@northwestern.edu


This study is funded in whole or in part with Federal funds from the Blueprint for Neuroscience Research, National Institutes of Health under Contract No. HHS-N-260-2006-00007-C

Phase I (September 2006-Present)



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

Toolbox Domains from RFP



COGNITION	EMOTION
MOTOR	SENSATION

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

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

Draft Development Plans



- For each instrument
- Identification of development experts

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

Instrument Development



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

Phase IIA (2008-2009)



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

Phase IIA (2008-2009)



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

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

Phase IIC (2011)



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

Organizational Structure



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

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

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)

General Sub-committees



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

Task Forces



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

CORE Management Committee



Executive Committee	Operations
Domain Managers	Instrument Librarian
Communications	
Technology	
Translations	

By the numbers



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

How to Keep up to Date with the NIH Toolbox



- www.nihtoolbox.org
- Quarterly newsletter
 - Distribution: 400 copies
 - Available on the website



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



Early Adopters



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

NIH Toolbox
Assessment of Neurological and Behavioral Function

Building the Toolbox: Timeline and Operational Structure

Richard C. Gershon, PhD
Center on Outcomes, Research and Education
Northwestern University
October 27, 2008

For more information, please visit www.nihtoolbox.org
Richard C. Gershon, PhD, PI gershon@northwestern.edu

This study is funded in whole or in part with Federal funds from the Blueprint for Neuroscience Research, National Institutes of Health under Contract No. HHS-N136B30005-00007-C.
