NIH Toolbox

Technical Manual

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NIH Toolbox Technical Manual

Domain:

MOTOR

Subdomain:

LOCOMOTION

Measure:

NIH Toolbox 4-Meter Walk Gait Speed Test

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Section 1: Introduction to NIH Toolbox

NIH Toolbox is a multidimensional set of brief measures assessing cognitive, emotional, motor, and sensory function from ages 3-85. This suite of on-line and royalty-free measures can be administered to study participants 3 to 85 years of age in two hours or less, across diverse study designs and settings.

What is the NIH Toolbox?

The NIH Toolbox provides a standard set of royalty-free, brief, and comprehensive assessment tools that can be used by researchers and clinicians in a variety of settings, with a particular emphasis on measuring outcomes in longitudinal epidemiologic studies and prevention or intervention trials across the lifespan (ages 3-85). The battery ensures that assessment methods and results can be used for comparisons across existing and future studies and provides a "common currency" for the study of neurological research that promotes economies of scale and enhanced efficiency in measurement. The NIH Toolbox can be used to monitor neurological and behavioral function over time and measure key constructs across developmental stages. This facilitates the study of functional changes across the lifespan, including evaluating intervention and treatment effectiveness.

The NIH Toolbox Batteries

The basic NIH Toolbox can be administered within two hours and divides tests into four domain batteries: Cognition, Emotion, Motor, and Sensation. In addition, within some domains, there are supplemental measures that are available to be administered.

Selection of the NIH Toolbox Domains and Subdomains

Four domains were selected for the NIH Toolbox: Cognition, Emotion, Motor, and Sensation. Subdomain selection was based upon literature reviews, expert interviews, and multiple formal Requests for Information (RFI) of NIH-funded researchers. Initial literature and database reviews and an RFI identified the subdomains for inclusion in the NIH Toolbox, existing measures relevant to the project goals, and criteria for instrument selection. NIH Project Team members, external content experts, and contract scientists met at a follow-up consensus meeting to discuss potential subdomains along with the criteria affecting instrument selection, creation, and norming. Additional expert interviews were undertaken to gather more detailed information from clinical and scientific experts to help further refine the list of possible subdomains. A second consensus group meeting was held and results directed the decision for the final NIH Toolbox to assess four core domain areas (cognitive, emotional, motor, and sensory health and function).

Selection of Measures for the NIH Toolbox

More than 1,400 existing measures were identified and evaluated for potential inclusion in the NIH Toolbox. The selection criteria included a measure's applicability across the life span,

psychometric soundness, brevity, ease of use, applicability in diverse settings and with different groups, and lack of intellectual property constraints. There was also a preference for instruments that were already validated and normed for use with individuals between 3 and 85 years old. Results of the instrument selection process yielded draft development plans established for the NIH Toolbox measures.

Early Childhood Use

NIH Toolbox measure development focused special attention on assessing young children, to ensure that all tests given are developmentally appropriate for ages 3-7. A special team of early childhood assessment consultants was engaged to provide testing guidelines for the very young, to offer input on measure development, and to review all NIH Toolbox measures to ensure they fit the needs of young children. Advanced statistical methods were used to emphasize continuity of measurement, allowing Toolbox users to confidently conduct longitudinal measurement from age 3 through the life span while assessing the same domain constructs.

Section 2: Validation

Validation studies were conducted for all NIH Toolbox Motor domain measures, to assure that these important tools for research met rigorous psychometric standards. Studies were

conducted across the entire age range and were statistically compared against "gold standard" measures wherever available.

For specifics regarding Motor domain measure validation, see: Reuben et al., Motor Assessment Using the NIH Toolbox, *Neurology*, in press; Rine et al., Vestibular Function Assessment Using the NIH Toolbox, *Neurology*, in press. These manuscripts describe measure development studies undertaken (e.g., expert panels for content development and validation; cognitive interviews; small and large-scale pilot testing) and psychometric characteristics (e.g., internal consistency and test-retest reliability; convergent and divergent validity).

Section 3: Norming

NIH Toolbox conducted a large national standardization study in both English and Spanish languages to allow for normative comparisons on each assessment. A sample of 4,859 participants, ages 3-85 – representative of the U.S. population based on gender, ethnicity, race, and socioeconomic status – was administered all of the NIH Toolbox measures at sites around the country (n = 2,917 English-speaking children, ages 3-17; n = 496 Spanish-speaking children, ages 3-7; n = 1,038 English-speaking adults, ages 18-85; n = 408 Spanish-speaking adults, ages 18-85). NIH Toolbox normative scores are now available for each year of age from 3 through 17, as well as for age ranges 18-29, 30-39, 40-49, 50-59, 60-69, and 70-85, allowing for targeted and accurate comparisons to the U.S. population.

Specifics regarding NIH Toolbox norming sampling methods (e.g., stratification by age, gender, and language preference; sampling a minimum of 25-100 individuals per targeted demographic and language subgroup) and norming analytic methods (e.g., post-stratification adjustment using iterative proportional fitting, i.e., "raking") can be found in the following publication: Beaumont et al., Norming Plans for the NIH Toolbox, *Neurology*, in press.

Section 4: NIH Toolbox and the National Children's Study (NCS)

In collaboration with NIH Toolbox scientists, NCS investigators selected measures from PROMIS and NIH Toolbox for a Maternal Health Profile, the Maternal Self-Reported Health Battery. This profile assesses Physical Health (Physical function, Fatigue, Sleep disturbance, Sleep-related impairment), Mental Health (Anger, Anxiety, Depression, Positive affect, Perceived stress, Self-efficacy), and Social Health (Social support and companionship, Social isolation). The Maternal Self-Reported Health Battery was field tested in fall 2011, using an online sample of 1000 women (200 pre-conception, 150 pregnant women (50 per trimester), and 650 mothers with a child between 0-36 months of age). In addition, NIH Toolbox norming was jointly sponsored by the NCS and included: 3,413 children in single-year age bands (from 3-17 years); 1,446 adults in seven age bands, including the mothers of children also being tested; and 105 pregnant

women. The NIH Toolbox sampling plan matched distributions of race/ethnicity and level of education for each age band.

Section 5: Domain Definition

Domain: MOTOR

Motor function involves complex physiological processes and requires the integration of multiple systems, including neuromuscular, musculoskeletal, cardiopulmonary, and neural motor and sensory-perceptual systems. Motor functional status is indicative of current physical health status, burden of disease, and long-term health outcomes, and is integrally related to daily functioning and quality of life. Given its importance to overall neurological health and function, motor function was identified as a key domain for inclusion in the NIH Toolbox. The Motor domain includes measures of:

DEXTERITY

Measured by:

NIH Toolbox 9-Hole Pegboard Dexterity Test

STRENGTH

Measured by:

NIH Toolbox Grip Strength Test

BALANCE

Measured by:

NIH Toolbox Standing Balance Test

LOCOMOTION

Measured by:

NIH Toolbox 4-Meter Walk Gait Speed Test

ENDURANCE

Measured by:

NIH Toolbox 2-Minute Walk Endurance Test

MOTOR Batteries

The NIH Toolbox Motor Battery for ages 7-85 includes all five core measures described above. For ages 3-6, the NIH Toolbox Early Childhood Motor Battery includes four core tests, while excluding the 4-Meter Walk Gait Speed Test. There are individual scores provided for each measure, as described below, but there are no composite scores provided for the Motor Battery.

Section 6: Subdomain Definition

Subdomain: LOCOMOTION

Locomotion refers to the act of moving from one place to another place, reflecting ambulation ability including walking distance, velocity, and quality of gait over different environments and ground surfaces. In NIH Toolbox, Locomotion is measured by:

NIH Toolbox 4-Meter Walk Gait Speed Test

Section 7: Measure Description

MOTOR Core Measure

The NIH Toolbox 4-Meter Walk Gait Speed Test is adapted from the 4-meter walk test in the Short Physical Performance Battery. Participants are asked to walk a short distance (four meters) at their usual pace. Participants complete one practice and then two timed trials. Raw scores are recorded as the time in seconds required to walk four meters on each of the two trials, with the better trial used for scoring. The test takes approximately three minutes to administer (including instructions and practice). This test is recommended for ages 7-85.

Section 8: Post-Validation/Post-Norming Changes to the Measure

In addition to those changes previously reported on during the measure's development and validation phases (Reuben et al., Motor Assessment Using the NIH Toolbox, *Neurology*, in press), the following changes have been made to this measure:

Test administration changes: Two trials are conducted at an examinee's "usual pace" (and no trial conducted at an "as fast as possible" pace). The better (faster) of the two timed trials is used for scoring. The test is appropriate and recommended for 7-85 year olds.

Section 9: The Measure's Scoring Model

Measurement theory applied for scoring:

Classical Test Theory (CTT)

CTT scoring approach employed:

Count (the number of seconds to walk 4 meters, using the better of two trials)

Measure length:

Fixed (4 meter walking distance)

Response data:

Continuous

Scores computed/available*:

Raw Score

Computed Score (transformed from the Raw Score into a meters-per-second metric)

*Details on these scores and their interpretations are available in the NIH Toolbox Scoring and Interpretation Guide.

Section 10: Measure Norms

The following Table presents NIH Toolbox normative data associated with this measure:

Table 1. Measure Raw/Computed Score Statistics (N, Mean, Standard Deviation, Minimum/Maximum Observed, 25th/50th/75th Percentile) per Age Group (5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18-29, 30-39, 40-49, 50-59, 60-69, 70-85, All)

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 5		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	63	64	127	43	48	91	106	112	218
	Mean	1.04	1.03	1.04	1.05	1.07	1.06	1.04	1.03	1.04
	Standard Deviation	0.21	0.18	0.20	0.11	0.08	0.09	0.18	0.15	0.16
	Minimum Observed	0.12	0.07	0.07	0.47	0.63	0.47	0.12	0.07	0.07
	25th Percentile	0.89	0.83	0.84	0.79	0.92	0.89	0.89	0.83	0.85
	50th Percentile (Median)	1.03	1.02	1.03	1.03	1.06	1.05	1.03	1.03	1.03
	75th Percentile	1.17	1.24	1.17	1.27	1.17	1.22	1.18	1.17	1.17
	Maximum Observed	2.35	1.88	2.35	1.56	1.65	1.65	2.35	1.88	2.35

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 6		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	60	62	122	41	51	92	101	113	214
	Mean	1.00	1.14	1.06	1.10	1.07	1.09	1.02	1.13	1.06
	Standard Deviation	0.18	0.24	0.21	0.08	0.08	0.08	0.15	0.18	0.17
	Minimum Observed	0.13	0.12	0.12	0.71	0.56	0.56	0.13	0.12	0.12
	25th Percentile	0.86	0.94	0.89	0.97	0.90	0.92	0.88	0.92	0.89
	50th Percentile (Median)	1.02	1.08	1.05	1.08	1.04	1.08	1.03	1.08	1.05
	75th Percentile	1.15	1.25	1.17	1.22	1.21	1.22	1.16	1.24	1.17
	Maximum Observed	1.62	2.86	2.86	1.67	1.59	1.67	1.67	2.86	2.86

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 7		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	83	79	162	46	47	93	129	126	255
	Mean	1.06	1.08	1.07	1.11	1.12	1.11	1.07	1.08	1.07
	Standard Deviation	0.18	0.14	0.16	0.09	0.08	0.08	0.15	0.13	0.14
	Minimum Observed	0.42	0.69	0.42	0.72	0.16	0.16	0.42	0.16	0.16
	25th Percentile	0.90	0.89	0.90	0.95	0.96	0.96	0.90	0.90	0.90
	50th Percentile (Median)	1.05	1.03	1.03	1.06	1.11	1.08	1.05	1.03	1.05
	75th Percentile	1.23	1.17	1.19	1.23	1.27	1.24	1.23	1.18	1.22
	Maximum Observed	2.11	2.56	2.56	1.85	1.75	1.85	2.11	2.56	2.56

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 8		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	107	103	210	0	0	0	107	103	210
	Mean	1.13	1.07	1.10				1.13	1.07	1.10
	Standard Deviation	0.16	0.13	0.15				0.16	0.13	0.15
	Minimum Observed	0.61	0.18	0.18				0.61	0.18	0.18
	25th Percentile	0.91	0.92	0.91				0.91	0.92	0.91
	50th Percentile (Median)	1.12	1.05	1.08				1.12	1.05	1.08
	75th Percentile	1.33	1.18	1.30				1.33	1.18	1.30
	Maximum Observed	1.73	1.91	1.91				1.73	1.91	1.91

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 9		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	108	108	216	0	0	0	108	108	216
	Mean	1.09	1.10	1.10				1.09	1.10	1.10
	Standard Deviation	0.14	0.15	0.15				0.14	0.15	0.15
	Minimum Observed	0.60	0.01	0.01				0.60	0.01	0.01
	25th Percentile	0.96	0.92	0.96				0.96	0.92	0.96
	50th Percentile (Median)	1.03	1.08	1.06				1.03	1.08	1.06
	75th Percentile	1.19	1.28	1.23				1.19	1.28	1.23
	Maximum Observed	1.87	1.82	1.87				1.87	1.82	1.87

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 10		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	118	117	235	0	0	0	118	117	235
	Mean	1.06	1.11	1.08				1.06	1.11	1.08
	Standard Deviation	0.14	0.11	0.13				0.14	0.11	0.13
	Minimum Observed	0.17	0.02	0.02				0.17	0.02	0.02
	25th Percentile	0.90	0.97	0.93				0.90	0.97	0.93
	50th Percentile (Median)	1.07	1.11	1.08				1.07	1.11	1.08
	75th Percentile	1.20	1.25	1.22				1.20	1.25	1.22
	Maximum Observed	1.76	1.67	1.76				1.76	1.67	1.76

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 11		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	109	109	218	0	0	0	109	109	218
	Mean	1.05	1.16	1.09				1.05	1.16	1.09
	Standard Deviation	0.14	0.10	0.13				0.14	0.10	0.13
	Minimum Observed	0.16	0.81	0.16				0.16	0.81	0.16
	25th Percentile	0.89	1.03	0.93				0.89	1.03	0.93
	50th Percentile (Median)	1.06	1.14	1.10				1.06	1.14	1.10
	75th Percentile	1.19	1.25	1.21				1.19	1.25	1.21
	Maximum Observed	1.92	1.69	1.92				1.92	1.69	1.92

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 12		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	101	115	216	0	0	0	101	115	216
	Mean	1.09	1.16	1.12				1.09	1.16	1.12
	Standard Deviation	0.15	0.12	0.14				0.15	0.12	0.14
	Minimum Observed	0.13	0.68	0.13				0.13	0.68	0.13
	25th Percentile	0.93	1.01	0.97				0.93	1.01	0.97
	50th Percentile (Median)	1.08	1.12	1.10				1.08	1.12	1.10
	75th Percentile	1.23	1.27	1.24				1.23	1.27	1.24
	Maximum Observed	1.85	1.99	1.99				1.85	1.99	1.99

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 13		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	119	102	221	0	0	0	119	102	221
	Mean	1.06	1.10	1.07				1.06	1.10	1.07
	Standard Deviation	0.12	0.13	0.12				0.12	0.13	0.12
	Minimum Observed	0.63	0.09	0.09				0.63	0.09	0.09
	25th Percentile	0.93	0.96	0.94				0.93	0.96	0.94
	50th Percentile (Median)	1.03	1.11	1.05				1.03	1.11	1.05
	75th Percentile	1.17	1.26	1.20				1.17	1.26	1.20
	Maximum Observed	1.69	1.91	1.91				1.69	1.91	1.91

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 14		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	113	119	232	0	0	0	113	119	232
	Mean	1.13	1.07	1.11				1.13	1.07	1.11
	Standard Deviation	0.12	0.10	0.11				0.12	0.10	0.11
	Minimum Observed	0.73	0.25	0.25				0.73	0.25	0.25
	25th Percentile	1.00	0.95	0.97				1.00	0.95	0.97
	50th Percentile (Median)	1.10	1.07	1.09				1.10	1.07	1.09
	75th Percentile	1.24	1.21	1.22				1.24	1.21	1.22
	Maximum Observed	1.67	1.74	1.74				1.67	1.74	1.74

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 15		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	104	108	212	0	0	0	104	108	212
	Mean	1.12	1.13	1.12				1.12	1.13	1.12
	Standard Deviation	0.14	0.12	0.13				0.14	0.12	0.13
	Minimum Observed	0.72	0.68	0.68				0.72	0.68	0.68
	25th Percentile	0.95	0.97	0.95				0.95	0.97	0.95
	50th Percentile (Median)	1.10	1.09	1.09				1.10	1.09	1.09
	75th Percentile	1.25	1.27	1.27				1.25	1.27	1.27
	Maximum Observed	1.95	1.81	1.95				1.95	1.81	1.95

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 16		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	107	106	213	0	0	0	107	106	213
	Mean	1.12	1.16	1.13				1.12	1.16	1.13
	Standard Deviation	0.14	0.10	0.12				0.14	0.10	0.12
	Minimum Observed	0.67	0.74	0.67				0.67	0.74	0.67
	25th Percentile	0.95	1.02	0.97				0.95	1.02	0.97
	50th Percentile (Median)	1.08	1.14	1.12				1.08	1.14	1.12
	75th Percentile	1.21	1.25	1.23				1.21	1.25	1.23
	Maximum Observed	1.70	1.83	1.83				1.70	1.83	1.83

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 17		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	110	112	222	0	0	0	110	112	222
	Mean	1.09	1.12	1.11				1.09	1.12	1.11
	Standard Deviation	0.14	0.11	0.13				0.14	0.11	0.13
	Minimum Observed	0.47	0.65	0.47				0.47	0.65	0.47
	25th Percentile	0.97	0.98	0.98				0.97	0.98	0.98
	50th Percentile (Median)	1.08	1.14	1.09				1.08	1.14	1.09
	75th Percentile	1.21	1.25	1.23				1.21	1.25	1.23
	Maximum Observed	2.00	1.94	2.00				2.00	1.94	2.00

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 18-29		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	59	110	169	21	70	91	80	180	260
	Mean	1.19	1.13	1.16	1.18	1.11	1.13	1.19	1.13	1.16
	Standard Deviation	0.46	0.37	0.41	0.30	0.20	0.23	0.42	0.31	0.35
	Minimum Observed	0.80	0.66	0.66	0.74	0.71	0.71	0.74	0.66	0.66
	25th Percentile	1.06	1.00	1.03	1.06	1.02	1.03	1.06	1.00	1.03
	50th Percentile (Median)	1.16	1.09	1.15	1.14	1.10	1.11	1.16	1.09	1.15
	75th Percentile	1.26	1.25	1.26	1.27	1.22	1.24	1.26	1.25	1.26
	Maximum Observed	1.75	1.65	1.75	1.97	1.80	1.97	1.97	1.80	1.97

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 30-39		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	55	152	207	21	74	95	76	226	302
	Mean	1.18	1.15	1.16	1.22	1.13	1.16	1.19	1.15	1.16
	Standard Deviation	0.39	0.37	0.38	0.21	0.16	0.18	0.35	0.32	0.33
	Minimum Observed	0.88	0.10	0.10	0.91	0.74	0.74	0.88	0.10	0.10
	25th Percentile	1.00	1.04	1.03	1.11	1.00	1.03	1.01	1.03	1.03
	50th Percentile (Median)	1.15	1.14	1.15	1.19	1.11	1.14	1.17	1.14	1.14
	75th Percentile	1.31	1.29	1.29	1.35	1.23	1.30	1.31	1.29	1.29
	Maximum Observed	1.83	1.78	1.83	1.63	1.65	1.65	1.83	1.78	1.83

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 40-49		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	61	115	176	29	41	70	90	156	246
	Mean	1.24	1.16	1.20	1.16	1.05	1.11	1.23	1.15	1.19
	Standard Deviation	0.44	0.46	0.46	0.40	0.26	0.33	0.43	0.42	0.43
	Minimum Observed	0.72	0.03	0.03	0.15	0.23	0.15	0.15	0.03	0.03
	25th Percentile	1.07	1.03	1.06	0.96	0.91	0.94	1.06	1.01	1.05
	50th Percentile (Median)	1.23	1.18	1.20	1.17	1.13	1.14	1.22	1.17	1.20
	75th Percentile	1.41	1.29	1.35	1.30	1.24	1.26	1.37	1.29	1.35
	Maximum Observed	1.80	1.85	1.85	2.16	1.53	2.16	2.16	1.85	2.16

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 50-59		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	54	78	132	24	24	48	78	102	180
	Mean	1.16	1.13	1.15	1.13	1.12	1.13	1.16	1.13	1.14
	Standard Deviation	0.64	0.49	0.56	0.36	0.20	0.29	0.57	0.44	0.50
	Minimum Observed	0.17	0.18	0.17	0.19	0.86	0.19	0.17	0.18	0.17
	25th Percentile	1.03	1.00	1.01	1.01	0.99	1.01	1.03	1.00	1.01
	50th Percentile (Median)	1.16	1.12	1.13	1.11	1.08	1.10	1.16	1.12	1.13
	75th Percentile	1.24	1.26	1.26	1.29	1.20	1.29	1.27	1.25	1.26
	Maximum Observed	1.99	1.75	1.99	1.65	1.62	1.65	1.99	1.75	1.99

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 60-69		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	44	63	107	19	19	38	63	82	145
	Mean	1.14	1.06	1.10	1.14	1.00	1.08	1.14	1.06	1.10
	Standard Deviation	0.61	0.36	0.48	0.21	0.18	0.20	0.52	0.33	0.43
	Minimum Observed	0.02	0.67	0.02	0.86	0.50	0.50	0.02	0.50	0.02
	25th Percentile	1.00	0.91	0.96	1.00	0.87	0.94	1.00	0.91	0.96
	50th Percentile (Median)	1.11	1.06	1.11	1.10	0.97	1.05	1.11	1.05	1.10
	75th Percentile	1.28	1.25	1.27	1.29	1.08	1.22	1.28	1.25	1.27
	Maximum Observed	1.75	1.75	1.75	1.65	1.42	1.65	1.75	1.75	1.75

Table 1. NIH Toolbox 4-Meter Walk Gait Speed Test (meters per second) - Usual Pace – Age 70-85		English			Spanish			Total		
		Males	Females	Total	Males	Females	Total	Males	Females	All
	N	85	89	174	20	14	34	105	103	208
	Mean	1.02	0.98	1.01	0.94	0.89	0.92	1.02	0.98	1.00
	Standard Deviation	0.38	0.27	0.33	0.25	0.15	0.21	0.36	0.26	0.31
	Minimum Observed	0.18	0.58	0.18	0.09	0.63	0.09	0.09	0.58	0.09
	25th Percentile	0.88	0.84	0.87	0.85	0.71	0.72	0.88	0.84	0.87
	50th Percentile (Median)	1.00	0.96	0.99	1.01	0.81	0.91	1.00	0.95	0.99
	75th Percentile	1.16	1.13	1.15	1.19	1.08	1.12	1.16	1.12	1.15
	Maximum Observed	1.75	1.63	1.75	1.33	1.47	1.47	1.75	1.63	1.75