

# Measuring What Matters: Evaluating, Selecting and Developing Cognitive Outcome Measures Using Advanced Psychometrics and Clinimetrics

Friday, July 25, 2025 | 8 a.m. – 5 p.m.

Westin Harbour Castle- Pier 4 &5 — Toronto, Canada

All times are in Eastern Standard Time

In-person attendance only

#### Overview

This workshop aims to improve the quality of cognitive outcome measures as well as to advance the design and evaluation of the quality of clinimetric and psychometric studies of measurement instruments. We will discuss how to: (1) develop methods of assessing the properties of health measurement instruments used in dementia research; (2) apply those methods to develop new, or evaluate existing, health measurement instruments, with the overall aim to (3) advance the quality measurements and the ability to utilize data derived from those measures in analyses.

### **Organizing Committee**

- Roos Jutten, PhD
- Renelle Bourdage, MA, Msc
- Laura Rabin, PhD
- Angel Garcia De La Garza, PhD
- Seo-Eun Choi, PhD
- Cuiling Wang, PhD

## **Target Audience**

This ISTAART immersive workshop is designed for individuals at all levels in Administration, Clinical Practice, Research, and Teaching.

# **Learning Objectives**

- 1. Describe the required steps for the evaluation of measurement instruments and apply these steps to their own clinical outcome measure(s).
- 2. Design (cross-cultural) studies on measurement properties and describe the terminology and criteria for measurement properties according to the COSMIN taxonomy.

3. Select the most appropriate statistical methods for evaluating measurement properties, including approaches to handling missing data and eliminating bias in the estimation of cognitive decline, and advanced psychometric methods such as Item Response Theory.

### Registration

Educational workshops are offered for in-person attendance only. Workshops require a separate registration fee in addition to AAIC full conference registration, or they may be purchased as stand-alone events. Visit <u>alz.org/AAIC</u>.

Agenda: July 25, 2025 | 8:00 am - 5:00 pm

Time	Session Details	Presenters
7:00-8:00 am	Light Breakfast (Westin Metropolitan Ballroom)	
9:00 – 10:00 am	Lecture 1: Assessing the properties of health measurement instruments using the COSMIN criteria: Implications for clinical outcome measure development and validation.	Dr. Roos Jutten
10:00 – 10:30 am	Use Case 1: Cultural considerations in the measurement of cognition	Drs. Renelle Bourdage
10:30 – 10:45 am	BREAK	
10:45 – 11:15 am	Assignment 1: Apply COSMIN health measurement instrument criteria to bring-your-own outcome measure used in study/clinic	In groups

11:15 am – 12:00 pm	Use Case 2: Specifying and defining subjective cognitive decline using Ecological Momentary Assessments	Dr. Laura Rabin & Dr. Angel Garcia de la Garza
12:00 – 1:00 pm	Lunch (Westin Metropolitan Ballroom)	
1:00 — 1:45 pm	Lecture 2: Measuring what is missing: How to deal with missing data in longitudinal studies of aging	Dr. Cuiling Wang
1:45 – 2:30 pm	Use Case 3: Advanced Psychometrics to Harmonization - Lessons from the Alzheimer's Disease Neuroimaging Initiative	Dr. Seo-Eun Choi
2:30 – 3:00 pm	BREAK	
3:00 – 4:30 pm	Assignment 2: Hands-on stats session to bring-your-own dataset.	In groups
4:30 – 5:00 pm	Wrap-up & Closing remarks	All