Modeling non-linear change using mixed-effect models in dementia research in R

Friday, July 26, 2024 | 1-5 p.m.
Marriott (Grand Ballroom A) — Philadelphia, USA
All times are in Eastern Standard Time
In-person attendance only

Overview

In this flash immersive course, researchers and health professionals will have a practical review of advanced analytical methods commonly used in scientific articles to model change of continuous outcomes (i.e. cognitive scores, some measure of physical function) over time. These models are used to ascertain (a) linear change over time before and after a known event (i.e. new medication intake or diagnosis of a condition that may be associated with the function of interest), (b) the onset of accelerated change (i.e. fixed and random change point models commonly used to study terminal decline), (c) half-decline of nonlinear curves thru the sigmoidal model (such as the sigmoidal curves postulated in Jack's model) and (d) and the shape of the trajectory using sigmoidal model and other strategies.

Organizing Committee

- Ana Capuano, Rush Alzheimer's Disease Center
- Vidyani Suryadevara, Radiology Molecular Imaging

Presenters

- Maude Wagner, Rush Alzheimer's Disease Center

Target Audience

This ISTAART Immersive workshop is targeted to attendees who are in research and teaching roles and is pitched at an intermediate-advanced level.

Learning Objectives

1. Review basic concept of advanced linear and nonlinear mixed effect models.
2. Discuss the limitations and data requirements of these models.
3. Practice modeling in a hands-on and interactive way by provided R codes and a sample dataset.

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.

Agenda

Time	Session Details	Speakers and Moderator