

## **NON-PHYSICIAN CATEGORY**

### **Variability in Physical Performance of Older African Americans**

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**Introduction:** Frail older adults anecdotally report “good “ and “bad” days. The validity of physical performance test results may be questionable if one test is conducted on a “good day” and another on a “bad” day. Reliability for diverse samples of older adults is needed if performance measures are used to measure function. The purpose of this research study was to determine the reliability and the standard error of measurement (SEM) for the short physical performance battery (SPPB), gait speed, six-minute-walk (6MW) distance, and timed up and go (TUG) time in an understudied sample of frail African American (AA) older adults. The SEM is reported in the same units of measure as the physical performance test and provides an estimate of variability. To determine if a clinical change occurs, the change has to exceed the SEM.

**Methods:** Forty- three AA from either a senior center or at a PACE location were tested a minimum of two times over one week using the 4 performance measures. Results& Discussion: The sample was 92% female with an average age of  $79 \pm 9$  yrs, BMI-  $30 \text{ kg/m}^2$ , MMSE-25, and multiple comorbid conditions including 71% with hypertension, 60% osteoarthritis, and 40% for both diabetes and renal disease. BMI, MMSE, co-morbid conditions and physical performance scores indicated that the sample was frail. The mean SPPB score for time 1(T1) was 7.6 points and 8.6 points for time 2(T2). Gait speed at T1 was 0.78 m/s and T2 was 0.82 m/sec. 6MW distance at T1 was 270 m and 270m T2. TUG time was 12.9 sec at T1 and 11.8 sec and T2. The SEM for the SPPB was 1.15 points suggesting that persons would need to change by more than 1.15 points for a clinician to consider that the change was real, i.e. more than day to day variability. For gait speed, the SEM was 0.11 m/sec, for 6MW distance was 25 m, and for TUG time was 1.6 sec. These data are consistent with published SEMs of older Caucasian Americans and provide a reference for interpreting clinical change in physical performance.