Introduction: Multiple sclerosis (MS) is a progressive neurological disease typically involving a gradual decrease in multiple aspects of functioning. Self-report and performance measures assessing functional limitations aid persons with MS (PwMS) and their health care providers in managing response to MS. The purpose of this study was to explore the relationship between self-report and performance measures of gross motor, fine motor, and cognitive function over time in persons living with MS.

Method(s): Sixty participants in a longitudinal study of PwMS consented to annual performance testing of motor and cognitive function and completion of self-report questionnaires over 5-years. Participants (77% female) had a mean age of 54.3 years (SD 7.9) and had been diagnosed for a mean of 18.4 years (SD 6.0). All participants completed the performance tests (Timed 25-Foot Walk, 9-Hole Peg Test and Paced Auditory Serial Addition Test [PASAT]) of the Multiple Sclerosis Functional Composite (MSFC) Index as well as the self-report Incapacity Status Scale (ISS). Pearson’s correlations were used to measure the relationship between ISS and MSFC subscale scores.

Results: Mean scores on all measures varied only slightly over the five years. The MSFC and ISS total scores had significant (p<.05) moderately strong (.59 - .74) relationships across the five years. The ISS gross motor subscale showed the strongest correlations (.79 - .87) with the Timed Walk. Fine motor subscales were moderately correlated (.47 - .69) with performance on the 9-Hole Peg Test. PASAT scores were not significantly correlated with self-report of cognitive function.

Discussion & Conclusions: Similar patterns of correlations at different time points as well as significant moderate correlations support the validity of self-report measures of function over time. The lower correlations observed in the cognitive measures may be due to the broader assessment of cognition in the self-report items compared to the PASAT. Overall, self-report measures offered complementary information to performance measures in this sample. Further study with larger samples and other self-reports of cognitive function are needed.