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## Ensuring the LIFE Study's Legacy

Does a structured, moderately-intense physical activity program indeed improve mobility in sedentary, older adults? Yes has been the definitive answer from the LIFE study, which reported findings in a June 2014 JAMA article. The study concluded that such a program, compared to one that provided health information and stretching exercises, significantly reduced major mobility disability among older adults.

Professor Mike Miller of the PHS Department of Biostatistical Sciences (DBS) and principal investigator for the LIFE data and analysis coordinating center at Wake Forest, noted that no previous exercise intervention of this sort had matched LIFE's large sample size (eight academic sites nationally with over 1,600 participants total) and follow-up length (2.6 years for the actual trial, which built on a previous planning grant and pilot study going back to 2000). Also contributing to the success of the study, Dr. Miller stated, were the "phenomenal" efforts of members of the LIFE data and analysis coordinating center, a closely working team of faculty and staff in DBS and Wake's Department of Health and Exercise Science, the latter leading the quality control efforts for implementation of the intervention at the sites.



**On the LIFE study team: left to right, Lea Harvin, Michael Walkup, Dr. Mike Miller.**

More recently, the LIFE group has been focusing on how its positive results may be more widely sustained. They are currently finalizing a database from a follow-up of the LIFE cohort to look for a legacy effect, "to see whether or not the effect of the intervention we saw on major mobility/disability continued to hold or got stronger after participants were no longer in structured physical activity," stated Dr. Miller.

The LIFE team has also submitted a proposal for a "more pragmatic study of the exercise intervention by placing it in YMCAs and less structured non-academic settings to see how that might affect transitions in mobility or disability of this older age group," added Dr. Miller. "It will be interesting to see how the eight sites might be able to push the intervention out into their communities, and not have to bring people in to their academic centers."

Key to an individual's success is the fluctuating definition of *moderate* exercise to fit the circumstance. Dr. Miller stated, "Our thinking now is that moderate exercise needs to be a sliding scale," adjusted for age, length of time in a program, illness, hospitalization, and so on. Some preliminary evidence now suggests that, for patients with health set-backs who become mobility disabled, their prior participation in the LIFE exercise program may assist in their recovery, pointing to the program's particular benefit at challenging points in a person's health.