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Testing Programs to Improve Diabetes Control in Underserved Populations

The debilitating effects of type 2 diabetes mellitus (T2DM)—including heart disease, stroke, blindness, and premature death—are strongly related to poor control of diabetes and associated risk factors such as blood pressure and blood cholesterol levels. Minority and underserved patients in the US are more likely to have T2DM, complications of T2DM, and have poorer control of diabetes and related risk factors for complications. To address this disparity, Dr. Alain Bertoni, principal investigator, Dr. Jeff Katula, co-principal investigator, and their research team are leading a study titled "Lifestyle Interventions For the Treatment of Diabetes" (**LIFT Diabetes**) to investigate two approaches to delivering an intervention designed to improve diabetes control among minority and lower-income patients with diabetes.

How best to improve DM control among such patients remains unclear. The ACCORD Study (Dr. Robert Byington, PI for the Coordinating Center) did not support using primarily drug-based regimens designed to achieve glucose levels that are closer to normal (hemoglobin A1c <6%) in higher risk adults with T2DM. Focus on lifestyle interventions, including exercise, weight loss, and nutritional therapy, has shown promise in the Look AHEAD study (Dr. Mark Espeland, PI, for the Coordinating Center in PHS) and in a community-based, translational lifestyle intervention (Healthy Living Partnerships to Prevent Diabetes [HELP PD]), led by Dr. Vitolins, which enrolled individuals with pre-diabetes in a behavioral weight loss program. In the latter project, participants have had significant weight loss and improved glucose, supporting the effectiveness of this route for delivering accessible and effective lifestyle interventions.

Given these positive results, the LIFT Diabetes study is testing which of two parallel lifestyle interventions to control DM in local minority and lower-income patients will be more successful: either a monthly Diabetes Education program taught by a registered nurse in a group setting; or a second program, emphasizing weight loss and increased physical activity, delivered primarily via groups, in a partnership between a certified diabetes educator (CDE) and community health workers (CHWs). This study is the first attempt to translate state-of-the-art research combining weight loss and glycemic control in DM patients by integrating the methods successfully tested in the large scale clinical trial, Look AHEAD. Some 260 participants from the Forsyth County, NC, area have been enrolled, and study interventions are being delivered. Expectations are that the Diabetes Education based intervention might be disseminated more rapidly since participants will be seen at sites where they usually receive medical care, and such visits are potentially reimbursable by third-party payors. On the other hand, participants in the CHWs intervention may have greater success, at lower costs, and the potential exists to reach a larger population. Findings comparing the benefits of each intervention will be forthcoming by the study's conclusion, projected for 2017.



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