By 2015, over half of persons living with HIV/AIDS will be over age 50. African Americans over age 50 are disproportionately affected by HIV/AIDS. Disadvantaged populations, such as racial minorities, aging with HIV/AIDS are at high risk of social isolation and depression, which have been linked to negative health behaviors and poor antiretroviral adherence. This study aimed to measure the effect of social support on health behaviors (medication adherence, sexual risk behaviors, alcohol and illicit drug use) in older African Americans aging with HIV/AIDS. Ninety-six African American, HIV+ adults age 50+ were recruited directly from the patient population at the University of Florida Center for HIV/AIDS Research, Education and Service (UF CARES). An interviewer-administered interview was conducted using a computer tablet. Quantitative measures included perceived and received social support, life burdens, feelings of depression, feelings of loneliness and social isolation, adherence to HIV medication, sex risk behaviors and recent substance use use. Qualitative data was collected to assess the impact of various forms of social support on health outcomes in this population. The goal of this research is to determine the need for interventions that address the effects of social support insufficiency, depression, or both, in this population.