WHI Long Life Study – Population Description
10/3/11

Overview
The goal of the WHI Long Life Study (in-person visit) is to develop a resource to support studies of factors associated with healthy aging, and to examine the changing levels of intermediate markers of CVD risk on subsequent clinical events. The design attempts to maximize the potential scientific opportunities in a cost-efficient manner, taking advantage of existing resources by selecting participants who were previously included in both GWAS and CVD biomarker studies, who are continuing in the 2010 Extension Study, and for whom new CVD health events will be documented and adjudicated (the Medical Records Cohort). The target sample size for the WHI Long Life Study is 8,000 participants aged 72 or older. The 8,000 participants will be those who consent from an eligible pool of approximately 10,000 2010-2015 Extension Study participants, including all African American and Hispanic participants eligible for GWAS studies and a European American sub-population selected to be representative of the WHI Hormone Trial (HT). All Long Life Study participants will have both genome-wide study (GWAS) data and baseline biomarker data (glucose, insulin, CRP, creatinine, triglycerides, total cholesterol, LDL, and HDL). Eligible participants must be at least age 72 by 1/1/2012. Participants will be excluded if they reside in an institution (e.g., skilled nursing facility).

Details of the sampling strategy for the Minority and European Americans included in the eligibility pool follow:

The Minority Population (Total N=5,153)
The WHI Long Life minority population consists of SNP Health Association Resource (SHARe) participants. Over 12,000 African American and Hispanics from all components of WHI were included in this GWAS project. Other than race/ethnicity, the only eligibility criteria for this sample were consent and availability of DNA. Those who are continuing in the 2010-2015 Extension Study and meet the age requirement are eligible for the WHI Long Life Study.

- N = 5,153 (3,698 African Americans; 1,455 Hispanics)

The European American (EA) Population (Total N=4845)
The WHI Long Life EA population consists of three sub-groups. Together, the members of these sub-groups are representative of the entire WHI HT population with regard to age, hysterectomy at baseline, enrollment period (< or ≥ 1996), and rates of MI, stroke, VT and diabetes.

1. *WHI Memory Study (WHIMS) EA participants*. WHIMS is a large ancillary study designed to study the cognitive effects of hormone therapy. WHIMS participants are HT participants who were over age 65 at baseline (all will be 78+ in January 2012). All who are continuing in the 2010-2015 Extension Study and eligible for GWAS are eligible for the WHI Long Life Study.
   - N = 3,389

2. *Genomics and Randomized Trials Network (GARNET) participants who are not in WHIMS*. The GARNET study is a case-control GWAS to examine gene-environment interactions in the HT. The study genotyped 4,869 EA participants, including 2,438 cases (MI, stroke, VTE, or diabetes) and 2,431 controls. GARNET participants were selected to complement the older WHIMS participants so that the age distribution of the EA population would be similar to that of the entire HT EA population.
   - All non-WHIMS GARNET *controls* who are continuing in the 2010-2015 Extension Study and meet the age requirement are eligible for the WHI Long Life Study: N = 733
   - A random sample of non-WHIMS GARNET *cases* who are continuing in the 2010-2015 Extension Study and meet the age requirement are eligible for the WHI Long Life Study: N = 124

3. *Other HT participants (Non-WHIMS, Non-GARNET)*. An additional group of European American HT participants were randomly selected to round out the representative EA population with respect to age. Of these, the participants who are in the MRC and meet the age requirement are eligible for the WHI Long Life Study.
   - N = 599.