

Healthy aging in diverse populations of women

Women's Health Initiative

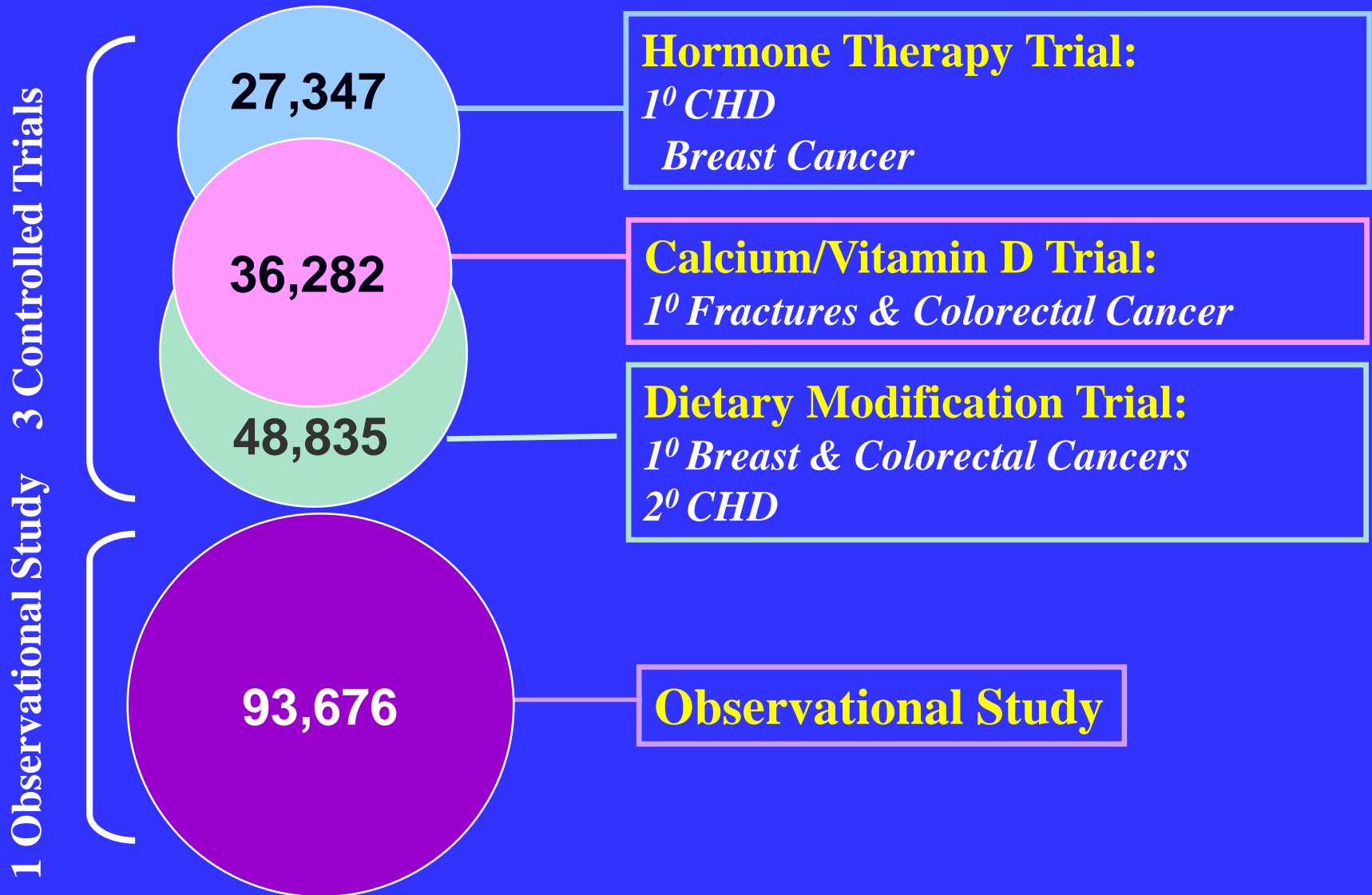
Karen Margolis

Garnet Anderson

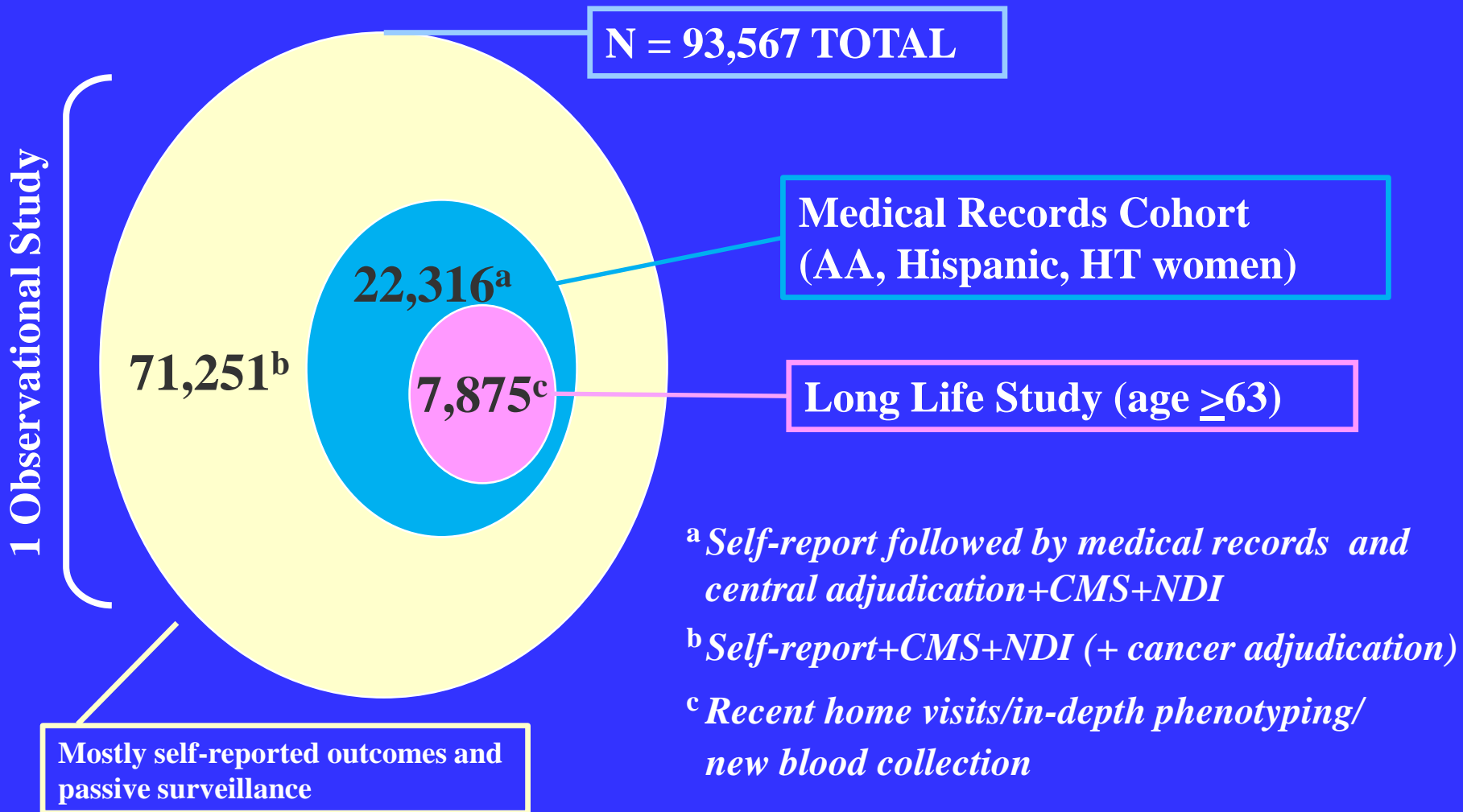
Marco Perez

The Women's Health Initiative: Original Design

(161,808 postmenopausal women, ages 50-79)



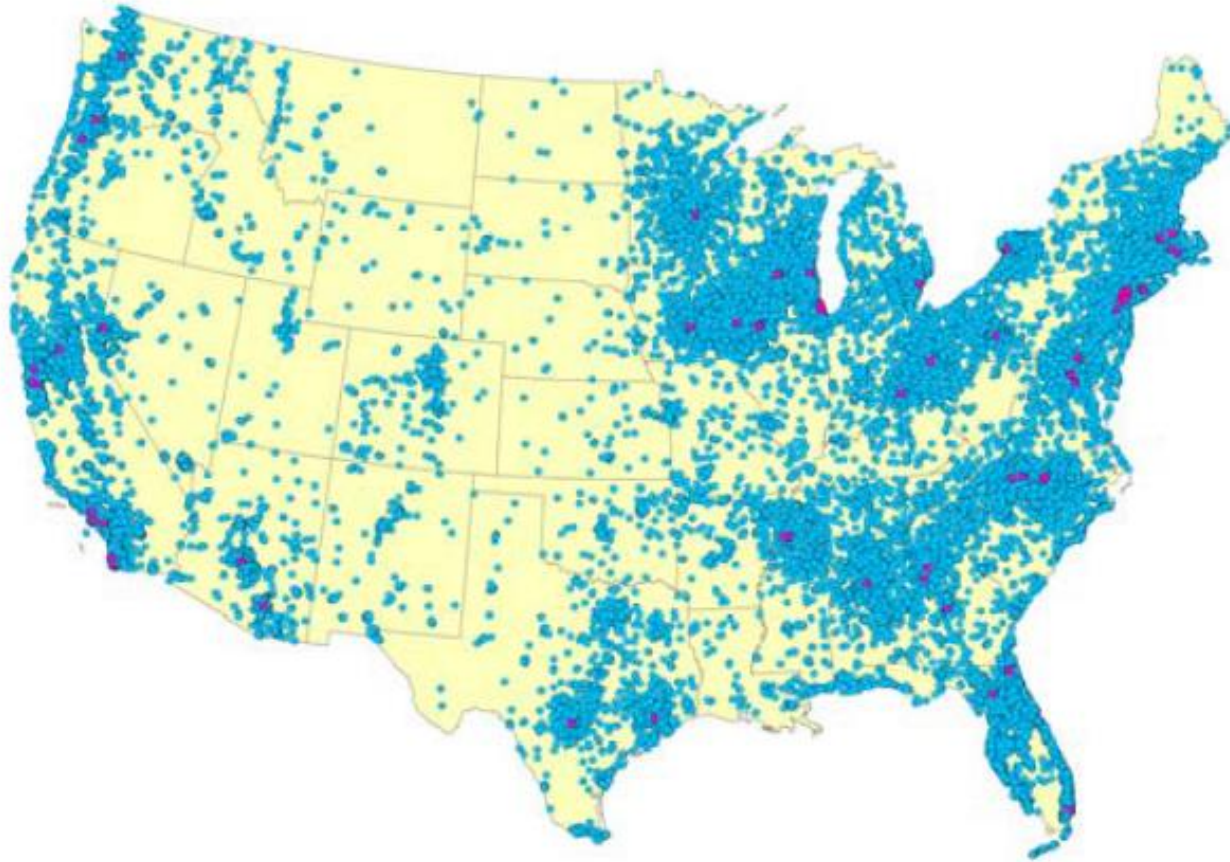
WHI: Current Structure (2010-2015)



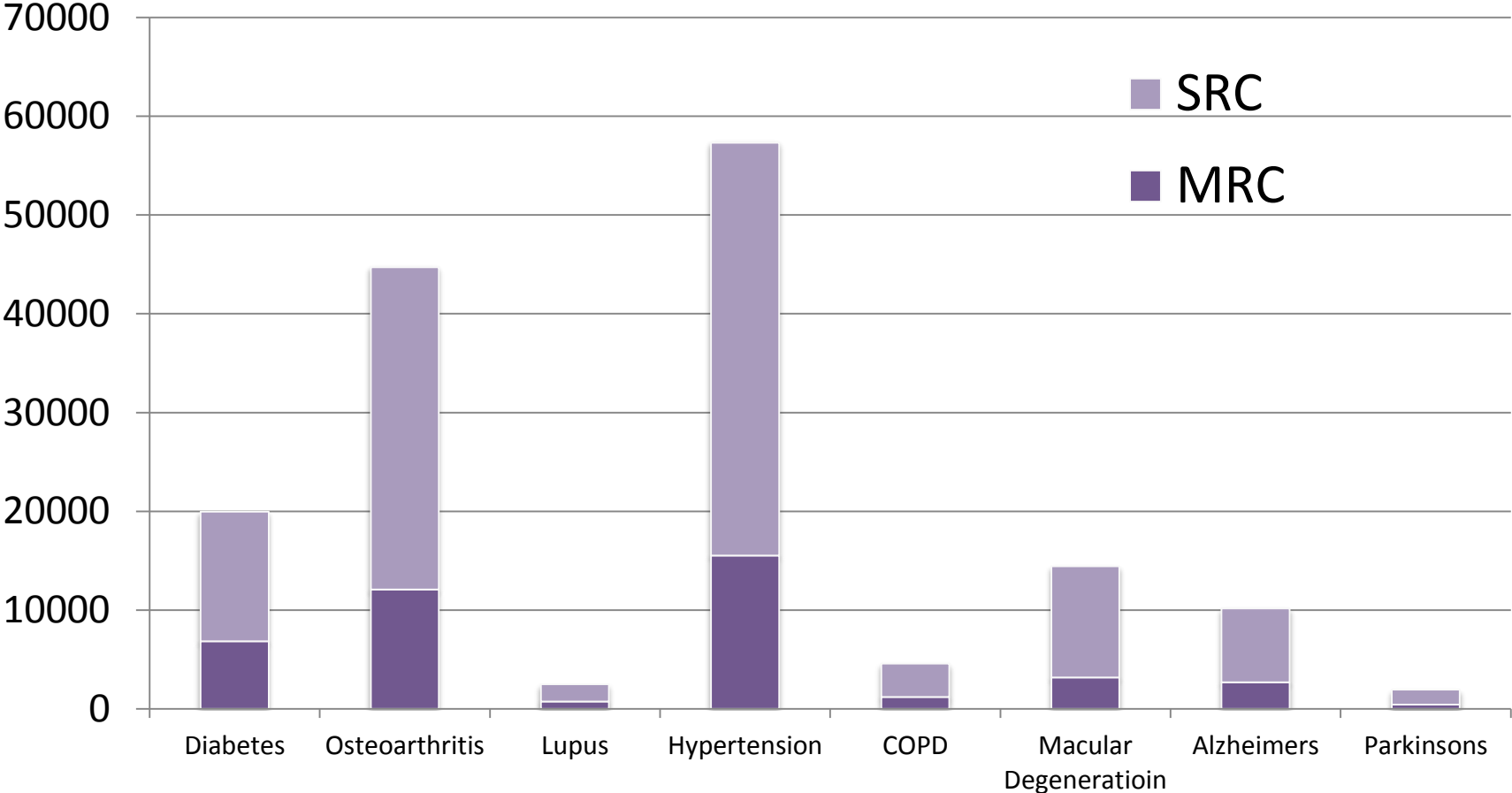
Current Cohort Demographics

- Enrollment in Extensions
 - 77% of eligible enrolled in Ext. 1 (2005-2010)
 - 87% of eligible enrolled in Ext. 2 (2010-2015)
 - Annual response rates ~95%
- Mean age 81
 - 50784/93657 (54%) are age ≥ 80
- Race/ethnicity
 - 87% are white (59% in MRC)
 - 7% are Black/African-American (6,136 [27%] in MRC)
 - 3% are Hispanic (2,472 [11%] in MRC)
 - 2% are Asian/Pacific Islander
 - <1% are Native American.

National Geographic Diversity (Participant Addresses & Field Centers)



Number of participants reporting other health conditions



Cancer Sites

- Breast
- Ovary
- Endometrial
- Colorectal
- Anus
- Biliary tract
- Bladder
- Bone
- Brain
- Cervix
- Connective/soft tissue
- Edophagus
- Eye and adnexa
- Genital organs
- Kidney
- Leukemia
- Liver
- Lung
- Hodgkins Lymphoma
- Non-Hodgkins Lymphoma
- Melanoma
- Multiple myeloma
- Mouth/Palate/Tongue/Salivary Gland
- Pancreas
- Parotid gland
- Stomach
- Thyroid
- Uterus



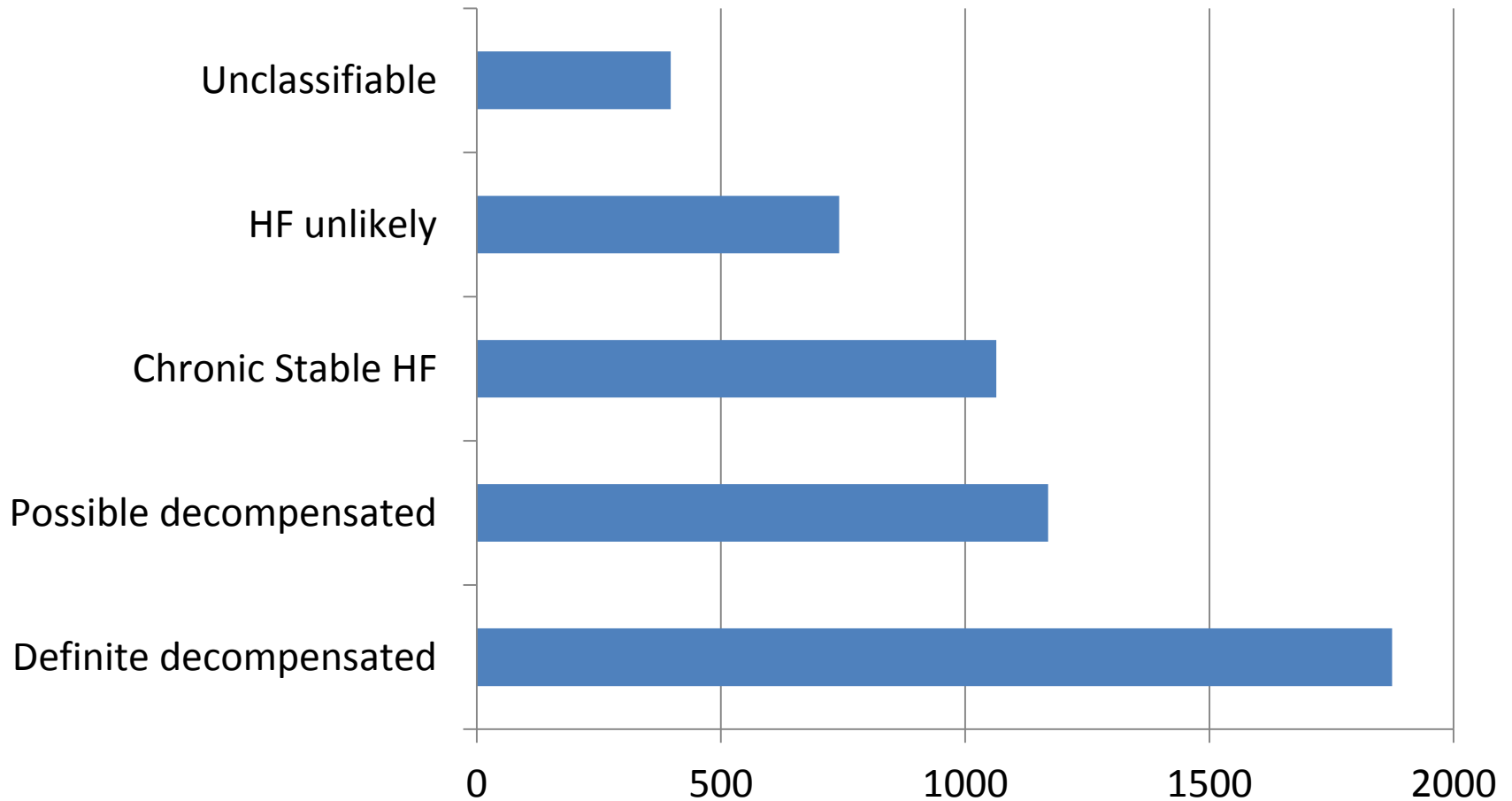
Major Strengths of WHI

- National, diverse cohort of women, wide variety of conditions
 - “Aging well” and “resilience”
 - Common (eg, incident afib – N=20K, N=1300 in AA women)
 - Rare conditions (eg, multiple myeloma)
 - Health disparities
 - Survivorship (eg, CVD after cancer)
- Key “renewable” resources:
 - Biorepository
 - Medication inventories,
 - CMS linkage 1991-present (CHD, stroke, PVD, VTE, HF, cancer, cancer tx)
 - Geocoded linkages (eg, census, built environment, env. exposures)
- Major funded ancillary studies:
 - Women’s Health Initiative Memory Study (dementia/MCI assessment, MRI)
 - Long-Life Study +OPACH (home visit, blood, accelerometry)
 - LILAC (tumor tissue, cancer treatment outcomes, CVD after cancer)
 - Two new embedded RCTs will newly recruit WHI participants
 - COSMOS: Cocoa flavanols/multivitamins 2x2 factorial (Manson, PI)
 - WHISH: Mail/telephone/internet physical activity intervention (Stefanick/Lacroix)

Ongoing Collaborations

- Genomics and other “omics” (CVD, cancer, fractures, for details see overview of WHI)
 - GWAS (N~30,000; 8600 AA and 3600 Hispanic
 - MetaboChip Data – ~8,000 AA and 4,000 Hispanics
 - Exome Chip Data: ~3,000 AA and 22,000 European
 - Exome Sequencing Data: ~800 AA and 1100 European
 - CVD: COGENT, GARNET, WHISP/ESP
 - CVD, lipids, T2D, asthma: PAGE
- Cancer Collaborations
 - Breast, endometrial, colon, pancreas, etc
- Heart failure outcome harmonization with ARIC/UNC (1994-present)
 - Includes preserved/reduced ejection fraction

Status of 5,247 HF cases sent to UNC



Vision for Population Science

(How Do Existing Cohorts Fit In?)

- Design new studies (and re-tool existing ones) to address key unanswered public health questions
- More cross-collaboration, fewer “siloes”
- Blend observational, clinical trial, and health services research (i.e., claims/EMR) methods
- Transition from traditional methods of recruitment and data collection by visits, mail, phone toward electronic/mobile data sources
 - Keep watching PCORnet, Collaboratory, Sentinel, Optum Labs
- Maintain and expand the high quality scientific training opportunities that currently exist
 - ~250 funded ancillary studies, ~60% PI is new to WHI
 - ~1000 published manuscripts, ~50% now led by author new to WHI

Cross-Cohort Project Ideas

- Cross-cohort trial
 - COSMOS supported by WHI + VITAL
 - CTSA's for visits and mechanistic studies
 - Preserved ejection HF
 - Promising interventions?
 - How to deliver efficiently?
 - Use CMS and other claims databases for outcomes
- Less common CVD conditions (race/ethnicity)
 - Aortic stenosis (VHD), PVD, sudden cardiac death