The Multiethnic Cohort Study

The MEC includes over 215,000 men and women aged 45-75 at recruitment (1993-1996), residents of Hawai‘i and California, primarily from five different racial-ethnic groups (African Americans, Japanese Americans, Latinos, Native Hawaiians, and whites).

**Design Features**
- 215,000 Hawaii and Los Angeles residents followed from age 45-75
- Linkage to Tumor Registries in HI and CA
- Questionnaires mailed every five years
- Blood and urine collected on 70,000; stool sample on 8,000

**Populations**
- Native Hawaiians, Japanese Americans, whites, African Americans, Latinos

**Goal**
- Understanding ethnic differences in cancer

**Focus**
- Lifestyle, diet, environment, genetic risk factors

**Funding**
- National Cancer Institute; $150+ million to UH since 1993

The MEC was established in 1993-1996 by mailing a questionnaire to persons identified primarily through the driver’s license files, voter registration lists, and Health Care Financing Administration data files. The baseline questionnaire was 26 pages long and obtained extensive information on demographics, medical and reproductive histories, cigarette smoking, medication use, including hormonal replacement therapy (HRT), family history of various cancers, physical activity and an extensive quantitative food frequency questionnaire (FFQ).

**Main Discoveries**

**Areas**
- Smoking & lung cancer
- Obesity & cancer
- Diet & cancer
- Genetics
- Social factors, obesogenic environment, air pollution

**Findings**
- Nutritional metabolism
- Visceral fat increases risk of breast & colon cancers
- Dietary recommendations to reduce visceral fat
- Common risk variants
- Risk prediction

**Impact**
- Lung, breast, colon cancer screening by CT scan
- Dietary recommendations to reduce visceral fat
- Dietary recommendations to reduce visceral fat
- Risk prediction

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