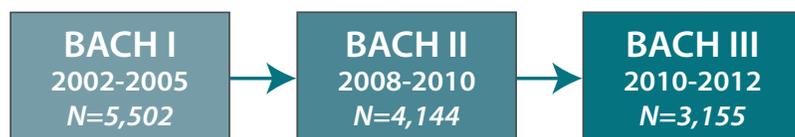




## The Boston Area Community Health (BACH) Survey

New England Research Institutes (NERI) offers analyses of the Boston Area Community Health (BACH) Survey data, an unparalleled dataset with longitudinal information on urologic symptoms, sexual function, and endocrinology.

**BACH** is a population-based observational research study that was conducted from 2002-2005. This survey used a multi-stage stratified random sample to recruit 5,502 men and women aged 30-79 years in three racial/ethnic groups from the city of Boston. Follow-up assessments of BACH were completed in 2010 (BACH II) and 2012 (BACH III) on 4,144 and 3,155 subjects, respectively. An overview of the measures collected in the BACH study is available.



"The BACH study is a highly visible internationally respected random community-based cohort study providing epidemiological and clinical understanding of major disease processes. It covers the fields of urology, endocrinology, diabetes/prediabetes, sleep medicine and bone health. Subject retention over this decade-long study and our scientific productivity have been outstanding."

**John B. McKinlay, PhD**  
Senior Vice President, NERI

### Unmatched Depth of Experience

Decades of experience and close ties to clinical experts and key opinion leaders in the fields of urology, sexual health, and endocrinology give NERI the expertise required to conduct efficient, high-quality statistical analyses, clinical reports, and manuscripts.

### Unique Strengths

NERI is a recognized leader in the field of epidemiology. NERI provides its clients with the following core organizational strengths, which set it apart as a research partner upholding the highest scientific and ethical standards:

- State-of-the-science study design, metrics, and statistical analysis
- In-house key opinion leaders in urology, sexual health, and endocrinology
- Dissemination of study data in major peer-reviewed journals and via award-winning Media department
- Extensive experience with challenging research topics and populations
- Demonstrated success in studying racial/ethnic and gender disparities in urology, sexual health, and endocrinology

## Proven Track-Record of Publication

NERI has published over 80 manuscripts in top-tier journals using the BACH data only, demonstrating our productivity. Below are key publications in major areas of concentration.

### Urology

- Maserejian et al. Treatment status and progression or regression of lower urinary tract symptoms among adults. **J Urol.** 2013
- Kupelian et al. Association of lower urinary tract symptoms and the metabolic syndrome. **J Urol.** 2013
- Maserejian et al. Intake of caffeinated, carbonated, or citrus beverage types and development of lower urinary tract symptoms in men and women. **Am J Epidemiol.** 2013

### Sexual Health

- Fang et al. Changes in erectile dysfunction over time in relation to Framingham Cardiovascular Risk. **J Sex Med.** 2014
- Travison et al. Correlates of PDE5i use among subjects with erectile dysfunction in two population-based surveys. **J Sex Med.** 2011
- Rosen et al. Lower urinary tract symptoms (LUTS) and sexual health: the role of gender, lifestyle and medical comorbidities. **BJU Int.** 2009

### Endocrinology

- Piccolo et al. Contribution of biogeographic ancestry and socioeconomic status to racial/ethnic disparities in type 2 diabetes. **Annals Epidemiol.** 2014
- Meigs et al. Association of African genetic ancestry with fasting glucose and hemoglobin A1c levels. **Diabetologia.** 2014
- Kupelian et al. Association of sex hormones and C-reactive protein levels in men. **Clin Endocrinol.** 2010

### BACH/Bone

- Araujo et al. Racial/ethnic and socioeconomic differences in bone loss among men. **J Bone Miner Res.** (in press)
- Bartali et al. Klotho, FGF21 and FGF23: novel pathways to musculoskeletal health? **J Frailty & Aging.** 2013
- Ceglia et al. Serum 25-hydroxyvitamin D concentration and physical function in adult men. **Clin Endocrinol (Oxf).** 2011

### BACH Sleep

- Fang et al. Geographic variations in sleep duration: a multilevel analysis from the Boston Area Community Health (BACH) Survey. **J. Epidemiol. Community Health.** 2015
- Piccolo et al. Racial and socioeconomic disparities in sleep and chronic disease: results of a longitudinal investigation. **Ethnic Dis.** 2013
- Fang et al. Traffic-related air pollution and sleep in the Boston Area Community Health Survey. **J Expo Sci Environ Epidemiol.** 2014

## Boston Area Community Health: Ancillary Studies

The BACH Survey provided a rich resource that was utilized for three additional studies on osteoporosis among men, sleep, and erectile function. These studies involved new clinic-based assessments as well as secondary analyses of existing data. Over 40 papers in scientific journals have been published based on the results of these ancillary studies.

BACH/Bone I & II	BACH Sleep	Endothelial Function and Erectile Dysfunction
<p><b>Objective:</b> To examine racial/ethnic disparities in musculoskeletal health among men</p> <p><b>Study Design:</b> Longitudinal cohort study of 1,219 men</p> <p><b>Measures:</b> DXA (bone mineral density, bone loss, fat and lean mass), XtremeCT (bone microarchitecture), muscle strength, physical function</p> <p><b>Major Findings:</b> Although race/ethnicity appears to contribute to BMD and bone microarchitecture, it does not contribute to bone loss.</p>	<p><b>Objective:</b> To examine racial/ethnic disparities in sleep and chronic disease</p> <p><b>Study Design:</b> Multilevel modeling of existing data</p> <p><b>Measures:</b> Neighborhood influences, air pollution, Berlin sleep questionnaire</p> <p><b>Major Findings:</b> There are substantial differences by race/ethnicity and socioeconomic status in the prevalence of sleep-related problems. Sleep-related problems were associated with the onset of urologic symptoms as well.</p>	<p><b>Objective:</b> To evaluate the association between endothelial function and erectile function</p> <p><b>Study Design:</b> Cross-sectional study of 400 men</p> <p><b>Measures:</b> Brachial artery flow-mediated dilation, reactive hyperemia, BPH, ED, Sexual Function</p> <p><b>Major Findings:</b> Results suggest that microvascular dysfunction may be a key link between ED and cardiovascular disease risk.</p>

To learn more about NERI's proprietary BACH dataset, please contact John McKinlay, Director of Epidemiology:

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