

## NORMATIVE AGING STUDY (NAS)

Originally established as an intramural research program within the Department of Veterans Affairs and conducted at the VA Outpatient Clinic in Boston, the longstanding objectives were the characterization of the biomedical and psychosocial parameters of aging as well as the development of disease conditions.

### Listing of study variables & measurement of variables

#### **Medical History:**

- standardized medical history and review of systems

#### **Physical Examination:**

- detailed report of clinical findings by organ system
- weight (except at cycle #1 and #2)
- blood pressure (L/R arm, sitting), heart rate
- blood pressure @ arm, supine), heart rate
- blood pressure @ arm, standing) heart rate

#### **Laboratory Studies:**

- complete blood count (hematocrit, hemoglobin, WBC/differential, RBC)
- erythrocyte sedimentation rate
- urinalysis
- BUN
- Creatinine
- uric acid
- calcium
- phosphorus
- bilirubin
- SGOT
- cholesterol
- HDL cholesterol
- triglycerides
- total protein
- albumin
- globulin
- serum protein electrophoresis
- oral glucose tolerance test (fasting)
- oral glucose tolerance test (two hour)
- prostate specific antigen

#### **Pulmonary Function:**

- forced vital capacity, standing
- forced expiratory volume at 1 second
- respiratory questionnaire: American Thoracic Society,
- chest x-ray: PA and lateral films

#### **Electrocardiogram:**

- EKG interval and amplitude measurements; patterns classified according to Minnesota Code

#### **Cornell Medical Index:**

- self-reported health questionnaire with responses to 195 questions regarding symptoms and health habits

#### **Smoking:**

- standardized interview initiated in 1978 (amount, type of tobacco, duration)
- Mailed questionnaire (1973, 1976)

#### **Drinking:**

- standardized interview 1983-1984 (frequency, type of alcohol, social context, problems)
- Mailed questionnaires (1973, 1982, 1991, 1996)

### **Anthropometry:**

- lengths and breadths: stature (wall), stature (free standing), arm reach, arm span, arm span (akimbo), biacromial breadth, bi-iliac breadth, bi-deltoid breadth, chest breadth, chest depth, abdomen depth, trunk height, knee height, hip breadth, elbow-mid finger, shoulder-elbow, bi-epi. knees, head length, head breadth, face breadth, face length, nose length, foot length, foot breadth, hand breadth, elbow breadth, wrist breadth, sitting height
- circumferences: head, wrist, upper arm, chest (resting), chest (max.), chest (min.), abdomen, hip, thigh, calf.

### **Audiology:**

- pure tone audiometry, speech reception and speech discrimination thresholds

### **Medications:**

- list medications taken (and cycles) classified according to formulary of the American Society of Hospital Pharmacists

### **ICDA-Diseases:**

- Codes of medical diagnoses according to ICDA 8<sup>th</sup> edition, 1968

### **ICDA-Operations:**

- codes of surgical procedures according to ICDA 8<sup>th</sup> edition, 1968

### **Mortality:**

- date and cause(s) of death as per death certificate and corroborating medical information, according to ICD 9<sup>th</sup> edition, 1989

### **Social Screening:**

- social characteristics, occupational and family history (administered at entry)

### **Psychological Battery:**

- Cattell 16PF subscales, general aptitude test battery, Alport-Vernon-Lindzey scale of values, Strong vocational interest blank (1965-1967)
- Cattell 16PF Subscales:
- also included other personality scales, measures of affect and life events. Administered to 65-67 psych. battery population (1975)
- Eysenck Personality Inventory (1976)

### **Work and Retirement Questionnaire:**

- employment circumstances and attitudes, social characteristics, self-reported health, subjective well-being (1975, 1978, 1981, 1984, 1987)

### **Jenkins Activity Survey:**

- coronary prone behavior (1984)

### **Social Support Survey:**

- support, stress, mental health (1985, 1988, 1991)
- MMPI (Minnesota Multiphasic Personality Inventory) (1991, 1996)
- Stress and Coping (since 1987 by mail survey, some interview data 1988-1991):
- Military & Life Experience Questionnaire (1990)
- Health & Social Behavior Survey (since 1987):
- self reported health and function, social characteristics and subjective well being

### **Quality of Life:**

- MOSFWBP, SF36, SF20, etc. (1992, 1996)

### **Prostate Disease:**

- quality of life survey (1996)