

Overview of CAM & Dietary Supplement Use in Cancer Patients

National Center for Complementary and
Alternative Medicine



American Dietetic Association
October 19-22, 2002

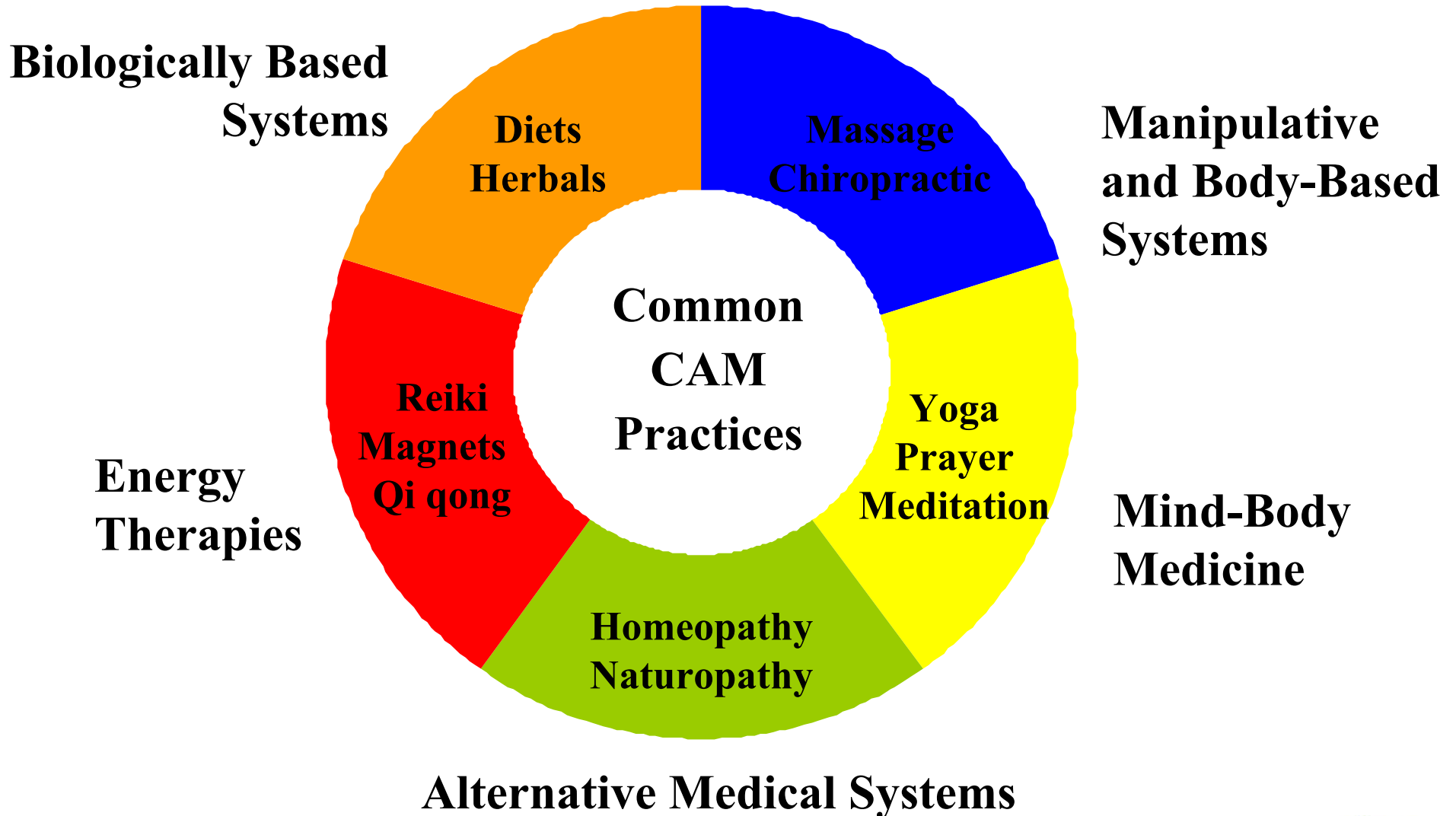
What Is CAM?



... medical and health care practices outside the realm of conventional medicine, which are yet to be validated using scientific methods

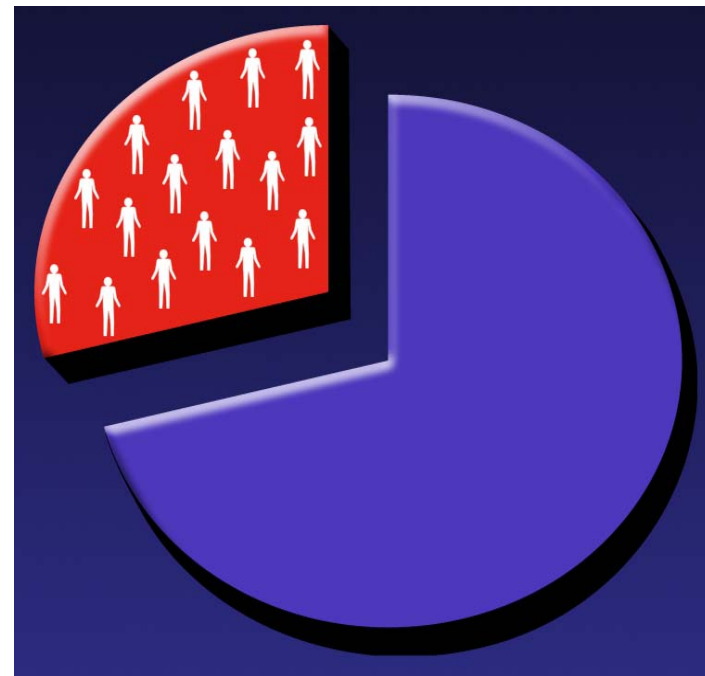
Largely used in hopes of improving wellness and relieving symptoms associated with chronic, degenerative, or fatal illness.

CAM Domains



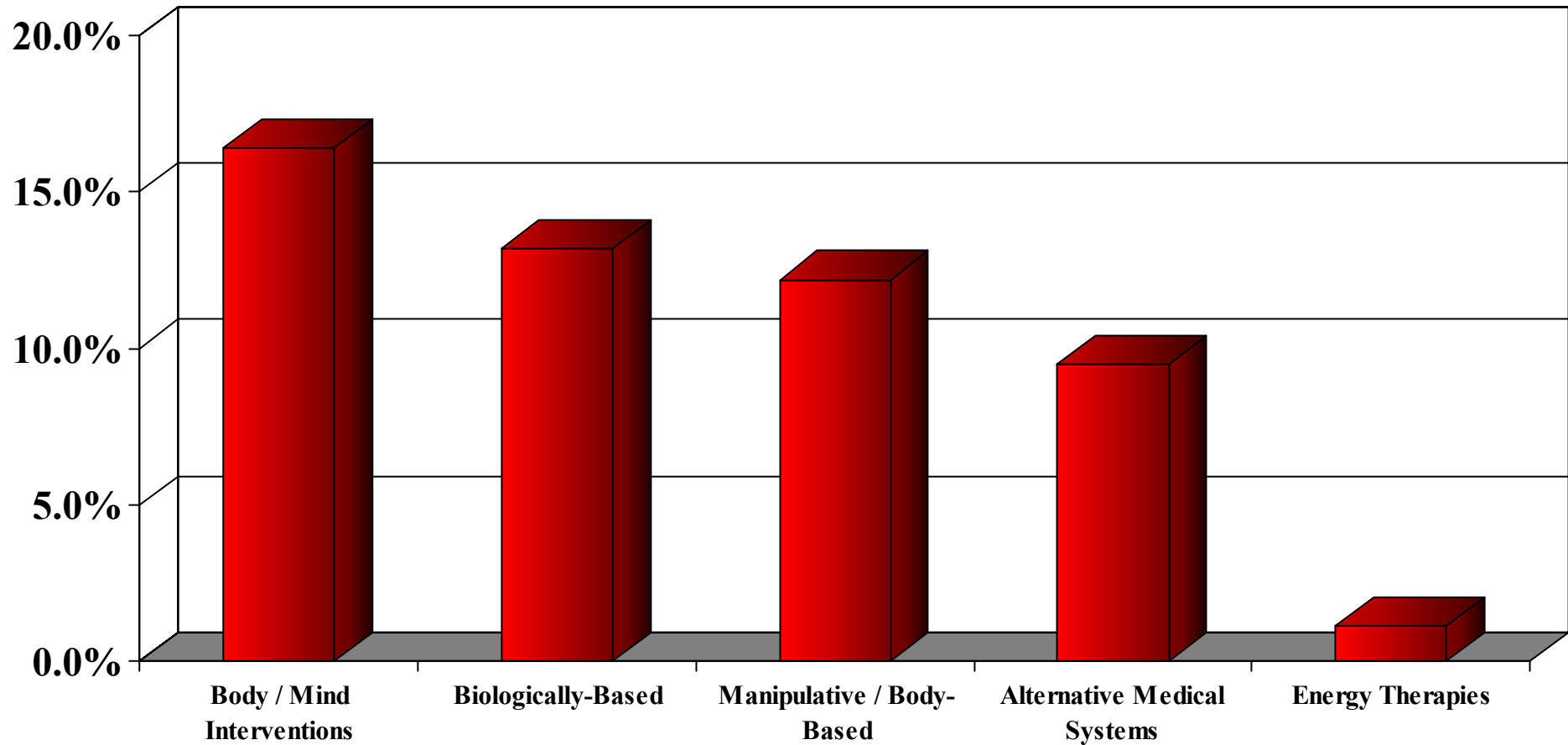
CAM Use in the U.S.

- **In the last year, 29% of adults used CAM therapies**
- **Women and college graduates were the most prevalent users**
- **Among the most commonly used therapies are herbal (10%), chiropractic (8%), and massage (6%)**



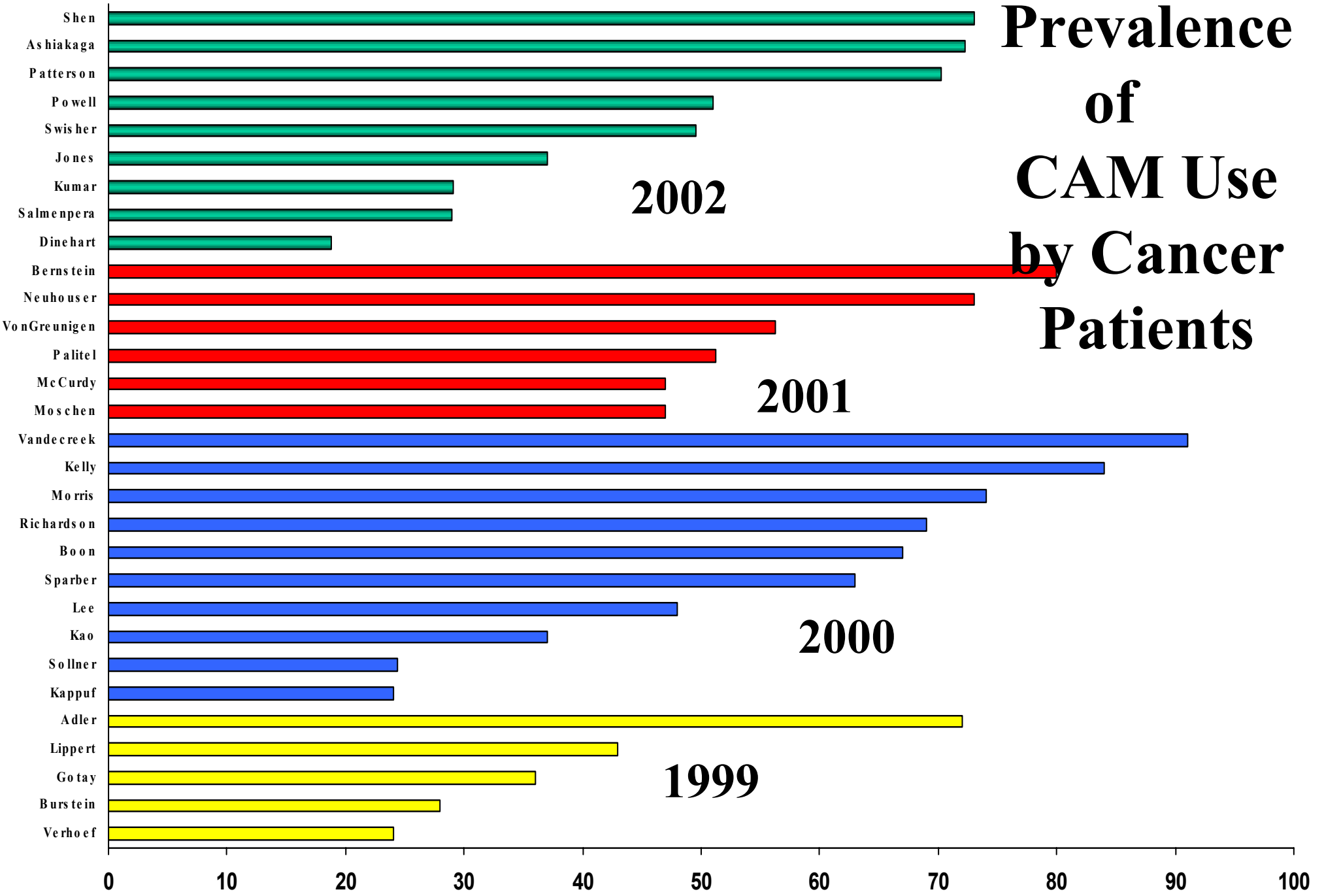
1999 NHIS Survey 30,801 adults; Hanyu et al, Med Care, 2002 40:353-358

Most Common CAM Therapies Used by Domain

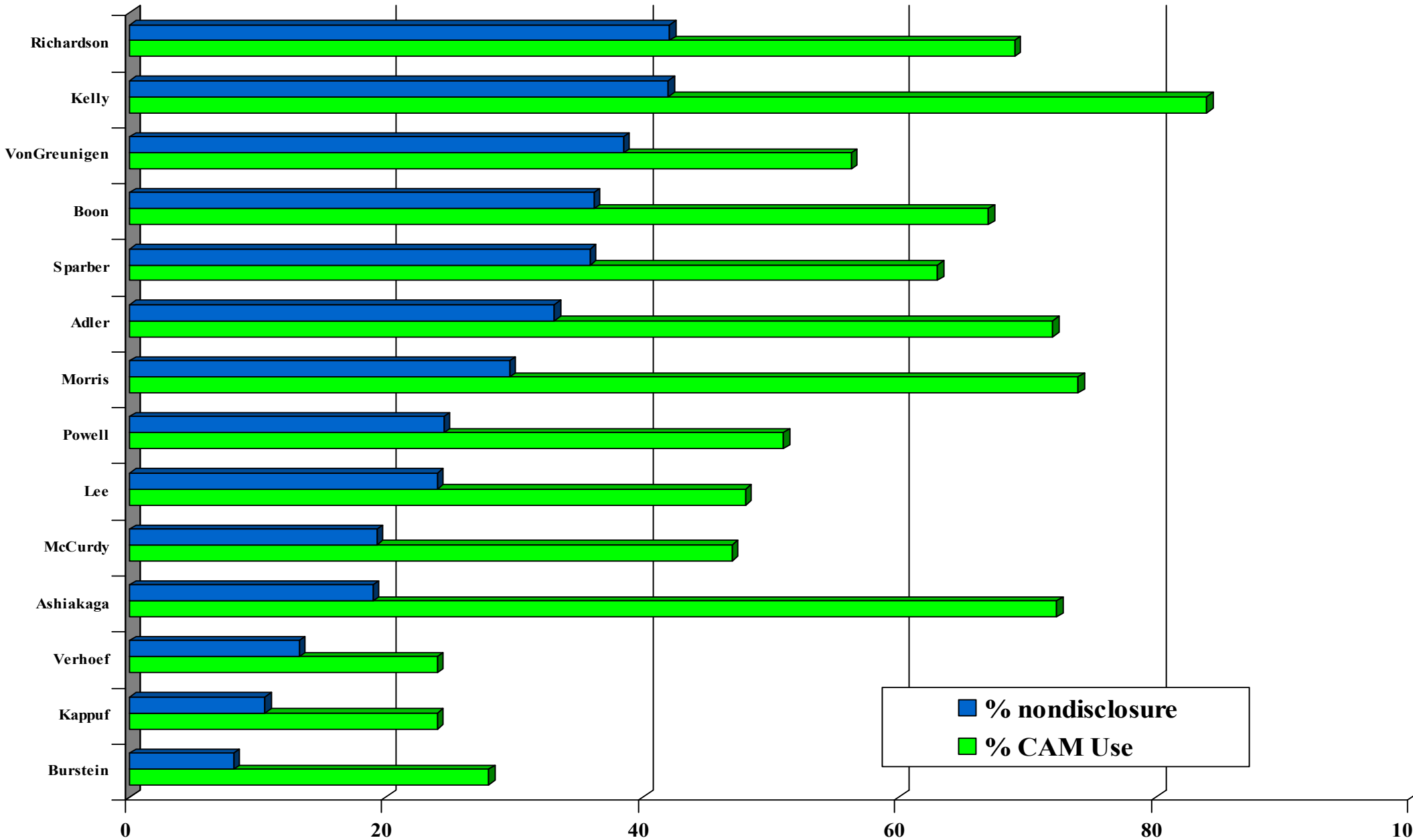


Source: 1999 NHIS Survey of 30,801 adults

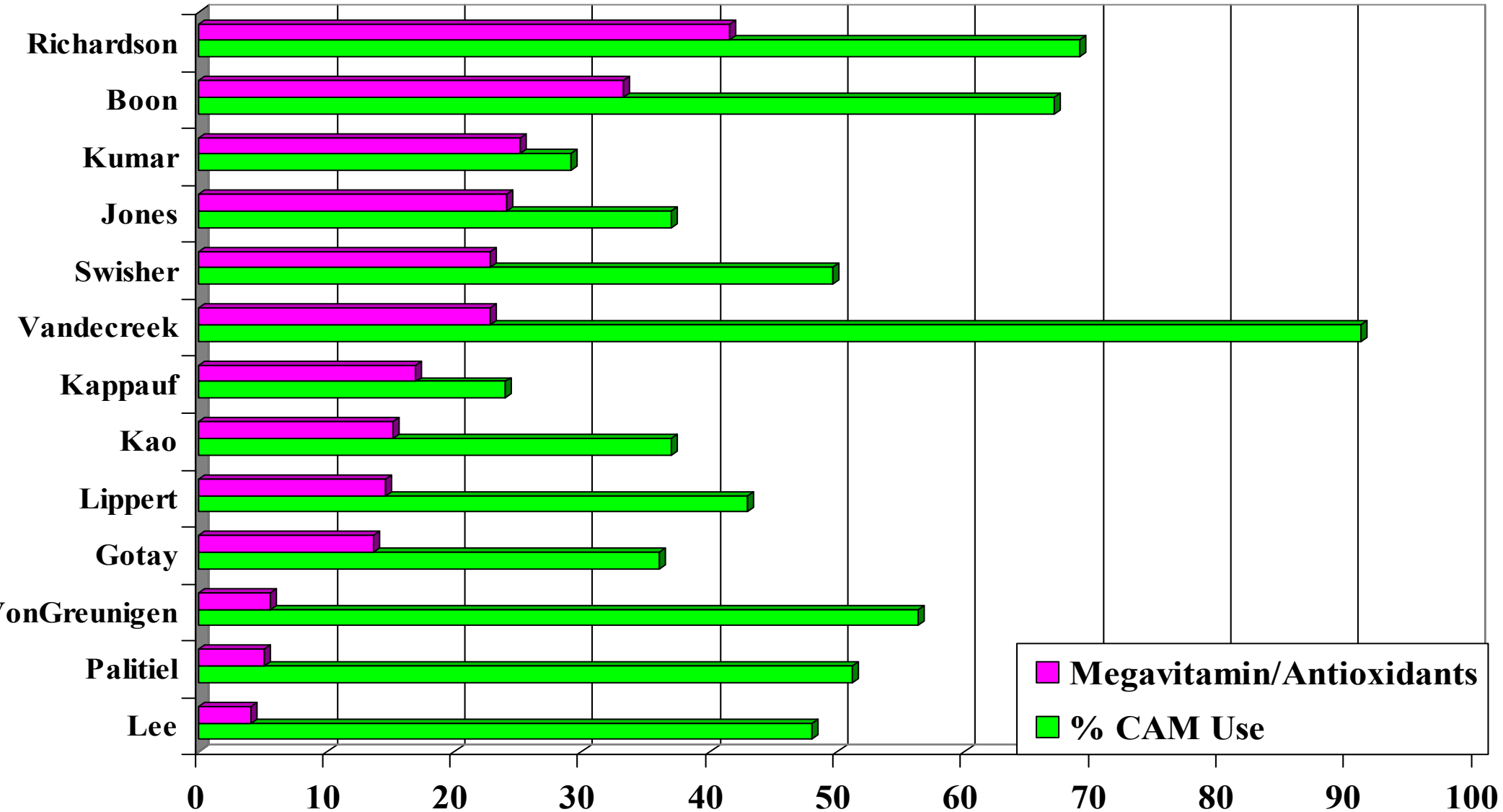
Prevalence of CAM Use by Cancer Patients



Cancer CAM Use & NonDisclosure: 1999-2002



Dietary Supplement (Herbals & Antioxidants) Use by Cancer Patients (Surveys 1999-2002)



Why People use CAM

- **Dissatisfaction with conventional medicine because of its ineffectiveness, cost, toxicity, and depersonalization**
- **Empowers the individual to take control over personal health decisions**
- **Resonates with an individual's values, spiritual/religious philosophy, and beliefs regarding nature and the roots of illness**

Biological Research - *It's All "Natural"...!*



“People can be induced to swallow anything, provided it is sufficiently seasoned with praise.”

Jean Moliere

Anticancer Therapies Potentially Altered by Antioxidants

- Alkylating Agents (cyclophosphamide, ifosphamide)
- Platinum Compounds (cisplatin)
- Antibiotics (doxorubicin, bleomycin)
- Topoisomerase II inhibitors (etoposide)
- Radiation

Conklin, K: Dietary Antioxidants During Cancer Chemotherapy: Impact on Chemotherapeutic Effectiveness and Development of Side Effects, Nutrition and Cancer, 37(1), 1–18;

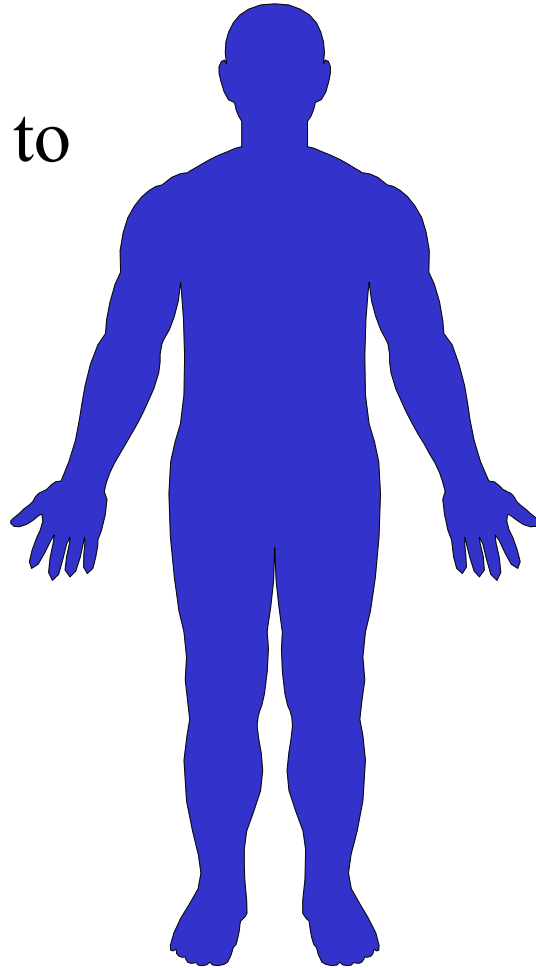
Kelly, K: Antioxidant Planning Group Meeting, June 2001



**"It is said that St. John's Wort may improve your mood.
But perhaps it's time to cut back the dosage."**

Undesirable Actions of St. John's Wort

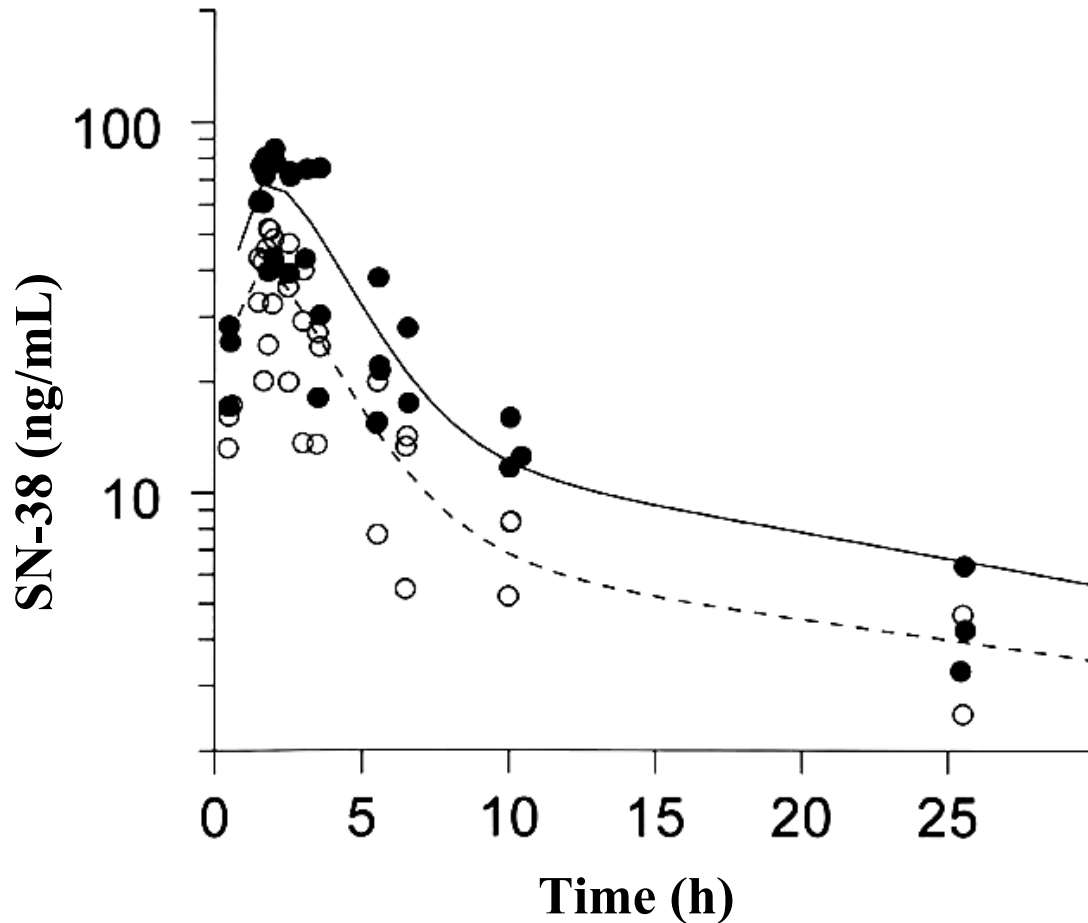
Increased sensitivity to the sun



Interferes with:

- Anti-cancer drugs
- Birth control medication
- Anti-depression agents
- HIV/AIDS drugs
- Prevention of organ transplant rejection

Effect of St. John's Wort (SJW) on Irinotecan Metabolism



- 5 patients with advanced cancer
- Treatment 18 days: Irinotecan (IV-350mg/m²) with or without SJW (orally 900mg)
- SN-38 (active metabolite) plasma levels significantly ($p < .033$) decreased 42% (95% CI 14% - 70%)
- Myelosuppression substantially worse in absence of SJW

Mathijssen et al, JNCI, 2002, 94 (16), 1247-1249.

Free Radicals: The Pros and Cons of Antioxidants

Upcoming Workshop: June 26-27, 2003

Sponsored by:

- **National Cancer Institute**
- **National Center for Complementary & Alternative Medicine**
- **Office of Dietary Supplements**

Topics:

- **Oxidative Stress- Positive and Negative**
- **Clinical Aspects of Antioxidant Use**
- **Chemotherapy/Radiotherapy Antioxidant Interactions**
- **Biomarkers, Endpoints, Model systems**

NCCAM's Phase III Clinical Trials

Condition	Therapy	Cosponsor
Dementia	<i>Ginkgo biloba</i>	NIA, NHLBI, NINDS
Osteoarthritis	Acupuncture	NIAMS
Osteoarthritis	Glucosamine/chondroitin	NIAMS
Lung cancer	Shark cartilage	NCI
Prostate cancer	Vitamin E/selenium	NCI
Minor depression	St. John's wort	NIMH, ODS
Coronary artery disease	EDTA chelation therapy	NHLBI
Benign prostate hypertrophy	Saw palmetto/African plum	NIDDK, ODS

U10: Cooperative Clinical Research

Project: **Selenium-Vitamin E Prostate Prevention
Multicenter Trial
(Charles Coltman, MD)**

Site: **Southwest Oncology Group
(cosponsored with NCI)**

SELECT Trial

Objective:

Prevention of prostate cancer (overall survival, cancer free survival, cardiovascular events, quality of life)

Intervention:

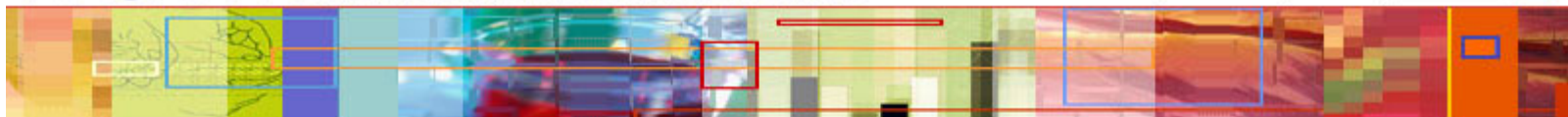
Selenium (200 mg/d) and/or Vitamin E (400 mg/d)

Design:

2 x 2 factorial (n=36,000) \geq 55 (AA men \geq 50); No prior history prostate cancer

Follow-up:

7-12 years (6 month intervals; annual DRE & PSA)



Health Information

- Understanding Complementary and Alternative Medicine (CAM)
- Alerts and Advisories
- Treatment Information
- More Resources

Research

- Plans and Priorities
- Current and Completed Research
- Funding Opportunities
- Applying for Research Grants
- Information for Grantees

Training

- Training Opportunities
- Training Locations
- Applying for Training Grants
- NIH Loan Repayment Programs

Clinical Trials

- Understanding Clinical Trials
- Finding NCCAM Clinical Trials

News & Events

- Meetings and Workshops
- Lecture Series
- Press Releases
- NCCAM Newsletter

About NCCAM

- Mission and History
- Visitor Information
- Strategic Plans and Reports
- Budget and Legislation
- Advisory Councils
- Public Involvement
- Offices and Divisions
- Job Opportunities

Highlights

- [May 28 Advisory Council Meeting](#)

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