



## **Ethnic, Demographic, and Lifestyle Determinants of Dietary Supplement Use in the Elderly**

**Suzanne P. Murphy, Ph.D., R.D.**

*Cancer Research Center of Hawaii, University of Hawaii, Honolulu, HI*

---

Studies that have examined correlates of dietary supplement use among older adults in the United States find that use by women is higher than use by men across most types of vitamin and mineral supplements (V/M). Among ethnic groups in the United States, Caucasians and Asians tend to have the highest V/M usage, while usage is lower among Mexican Americans and African Americans. Although use tends to increase with age for adults, the increases are much smaller across the older age groups, and the percent using V/M is almost constant after age 50. Users also have a higher level of education and a higher household income. Studies of V/M use have found that individuals with healthy lifestyles are more likely to take supplements. For example, current smokers are less likely to use V/M than persons who have never smoked, and those who drink alcoholic beverages frequently are less likely to take supplements than non-drinkers. Supplement use is inversely associated with body mass index (BMI), and is lowest for obese persons. Use is positively associated with the level of physical activity. Older adults who use dietary supplements also appear to select healthier diets. Several studies have reported a lower percent of energy from fat among V/M users, a higher intake of dietary fiber, and increased intakes of fruits and vegetables. Fewer data are available on use of non-vitamin, non-mineral supplements (NVNM). Limited analyses can be performed using NHANES III data, where participants were only asked about V/M, but information was recorded if they also reported NVNM. Associations with lifestyle variables among NVNM users were similar to those for users of V/M with two exceptions: obese individuals and those with the highest alcohol intake were more likely to use NVNM.

**Conclusions:** Older adults who use supplements are more likely to have healthy lifestyles, although associations may be different for V/M and NVNM users.

**Research needs:** To accurately evaluate predictors of dietary supplement use in older adults, we need more current data on use, change in use over time, and change with diagnosis of chronic diseases. Information on use of NVNM as well as V/M supplements is needed. Methods of collecting supplement use data need to be validated among older adults. To better understand differences between younger and older adults, age-specific reporting of factors associated with use would be helpful.

## References:

1. Lyle BJ, Mares-Perlman JA, Klein BEK, Klein R, Greger JL. (1998). Supplement users differ from nonusers in demographic, lifestyle, dietary and health characteristics. *J Nutr* 128:2355-2362.
2. National Center for Health Statistics. (1999) Use of dietary supplements in the United States, 1988-94. Vital and Health Statistics Series 11, No. 244. DHHS Publ No.(PHS) 99-1694.
3. Radimer KL, Subar AF, Thompson FE. (2000) Nonvitamin, nonmineral dietary supplements: Issues and findings from NHANES III. *J Am Diet Assoc* 100:447-454.
4. Neuhouser ML, Kristal AR, Patterson RE, Goodman PH, Thompson IM. (2001) Dietary supplement use in the Prostate Cancer Prevention Trial: Implications for prevention trials. *Nutr Cancer* 39:12-18.
5. Hoggatt KJ, Bernstein L, Reynolds P, Anton-Culver H, Deapen D, Peel D, Pinder R, Ross RK, West DW, Wright W, Ziogas A, Horn-Ross PL. (2002) Correlates of vitamin supplement use in the United States: data from the California Teachers Study cohort. *Cancer Causes Control* 13:735-740.
6. Foote JA, Murphy SP, Wilkens LR, Hankin JH, Henderson BE, Kolonel LN. (2003) Factors associated with supplement use among healthy adults of five ethnicities: The Multiethnic Cohort Study. *Am J Epi* (in press).