Who Is Using Dietary Supplements and What are They Using?

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DSHEA assured American consumers access to products
OUTLINE

- US expenditures on dietary supplements
- Recent national findings of dietary supplement use by Americans
  - Who, What, How many, How often, How long
- Case study illustrating importance of assessing total nutrient intake and challenges
- Tools on the horizon for nutrition professionals
How much money do Americans spend on dietary supplements?
Dietary Supplement Sales in 2004: $20.3 Billion

Source: NBJ, derived from a variety of sources
How Many Americans Use Dietary Supplements Today?

- Nationally representative data are available from the National Health and Nutrition Examination (NHANES) Surveys

- NHANES is a continuous survey of about 5,000 people per year from 15 communities to assess the health and nutritional status of adults and children in the United States
NHANES Data are used to

- Estimate the population prevalence and distribution of health conditions and related risk factors
- Monitor trends in health over time
- Study the relationship of nutrient intake, nutritional status indicators, and health over time
Trends in the age-adjusted prevalence of diet-related health conditions in U.S. (adults age 20 to 74)

Data source: National Health and Nutrition Examination Surveys (NHANES); data are plotted at the midpoint of the NHANES survey period.
In NHANES surveys dietary supplement use is recorded

Participants are asked

- if they have taken any vitamins, minerals, or other dietary supplements in the past month?
- to include prescription and non-prescription supplements
- if they have taken any antacids (for calcium intake)
- to furnish supplement containers (not seen 1/3 of time)
- to provide details of use: how long, how often, how much?
Dietary Supplement Database available for approximately 5000 products

- Labels are obtained from manufacturers, retailers and the internet
- Currently available at http://www.cdc.gov/nchs/nhanes.htm
  - scroll to Data Sets and Related Documentation
  - Click on either NHANES 1999-2000
  - NHANES 2001-2002
How many Americans use Dietary Supplements?

What Dietary supplements are used most often?
Prevalence of Dietary Supplement Use Among US Adults > 20 yrs
NHANES 99-00 (n=4862)
Prevalence of Dietary Supplement Use Among US Adults ≥ 20 yrs by Gender

NHANES 99-00 (n=4862)

- ANY: Males 46.9%, Females 56.7%
- MVMM: Males 31.7%, Females 38%
- E: Males 11.7%, Females 13.5%
- C: Males 12.2%, Females 12.6%
- CA: Males 3.9%, Females 16.4%
- Antacid Ca: Males 18.9%, Females 29.5%
- B-complex: Males 4.4%, Females 5.8%
Prevalence of Dietary Supplement Use Among US Adults by Age
NHANES 99-00 (n=4862)
Prevalence of Dietary Supplement Use Among US Adults by Race/Ethnicity

NHANES 99-00 (n=4427)
Demographic/Lifestyle Variables Associated with Dietary Supplement Usage (NHANES 99-00)

For use of any and most commonly taken supplements, associations were positive for:
- BMI < 25
- greater physical activity
- Health status reported as excellent or very good
- Never or former smokers
- alcohol users (wine)
How many supplements do Adult Supplement Users take?
Percentage Distribution of Number of Supplements taken by U.S. Adult users
NHANES 99-00 (n=2399)
How often and how long have adult users taken dietary supplements?

- At least 89% of the most common supplement types were reported to be taken daily.

- Over 1/2 of users for most supplement types had taken them for 2 years or more.

- Over 1/5 of users had taken Vitamins C and E and antacids containing Ca for over 10 years.
Trends in the age-adjusted prevalence of diet-related health conditions in U.S. (adults age 20 to 74)

Data source: National Health and Nutrition Examination Surveys (NHANES); data are plotted at the midpoint of the NHANES survey period.
Case Study

- Is Ca intake related to national trends in prevalence rates for hypertension?
  
  - To assess this possibility, Ca intakes must be compiled from
    
    - food sources
    - dietary supplements
    - antacids
Approach

- Collect and analyze for food sources
- Collect and merge data on supplement use
- Collect and merge data on antacid use
- Total dietary intake of calcium
Challenges

- **Food sources**
  - Collected in NHANES from 24 hour recall
  - Calcium fortified sources need to be identified

- **Supplement use**
  - Collected in NHANES, but past 30 days

- **Antacid Use**
  - Collected in NHANES, may not be in other surveys

- **Total dietary intake of calcium**
  - Merging data not straight forward
  - Two different methods over different periods of time are used to collect data on food and supplement and antacid intakes
Help is on the way: NOADS

- NHANES online analysis of dietary supplements (NOADS)

- ODS is developing a web-based data analysis program for NHANES data on nutrient intakes
  - Real time and user friendly

- Total Intake Nutrient intakes from foods, dietary supplements, and OTC and prescription products and the relative contribution of each will be possible
Dietary supplement usage is widespread in the US

Contributions of nutrient intakes from dietary supplement may exceed intakes from foods

Nutritional assessment should include intakes from dietary supplements and other potential sources of nutrients (i.e. antacids)

Databases and Tools for their use in practice are being developed
OFFICE OF DIETARY SUPPLEMENTS

Visit the ODS Web site
http://ods.od.nih.gov

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