Why Do Americans Use Dietary Supplements?

Motivations for Dietary Supplement Use

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Agenda

- **USE**
  - How do people vary in dietary supplement use?

- **MOTIVATIONS**
  - Do people think they are “deficient”?
  - Do motivations for use vary by
    - **person** (demographics, health status, readiness)
    - **supplement** (nutrient vs herbal/botanical)
  - Are some people more ready to use than others?

- **IMPLICATIONS** for dietitians
Demographics

Motivation

Use

N=2002 nationally representative grocery shoppers, in 2003
Motivations

Age
Sex
Income
Education
Ethnicity

Concerns about
Nutrient deficiencies
Health status
Readiness to engage
In preventive behaviors

Attitudes

Use

Nutrient vs Non-nutrient
Specific products
Population

- Representative sample
  - Primary grocery shoppers/heads of household in USA, 2003
  - N=2002
  - Surveyed by National Family Opinion for The Natural Marketing Institute (NMI)
    - 16 page mail-home questionnaire of Health and Wellness
    - Secondary data analysis funded by ODS, NIH

- Results nationally projectable within 2%
Methods

- Motivations and use
  - General
  - For specific conditions/purposes
    - weight loss
    - managing chronic conditions
    - others

- Respondents
  - Demographics
    - Age
    - Sex
    - Income
    - Education
    - Ethnicity
  - Current health status
  - Type of supplement used
    - nutrient vs nonnutrient
  - Readiness to use DS
Methods

- Respondent characteristics
  - Demographics
    - Age
    - Sex
    - Income
    - Education
    - Ethnicity
  - Current health status
  - DS use
  - Motivations

- Supplement characteristics
  - Type (nutrient vs herbal and other)
  - Category (MVM, single nutrient, condition-specific)
How do people vary in DS use?
Most Popular Nutrient DS 2003

- Glucosamine
- Folic
- Antox
- Mg
- Herbals
- B complex
- C
- E
- Ca
- MVM

Percent Using Daily
Lately herbal DS decreasing and condition-specific DS increasing!
Factors affecting use

- Demographics
  - More with age especially if feeling poorly
  - F>M
  - W> B or Hispanic

- More with poor current health status

- Supplement type and category also affect
Use of some DS very common past year

- Homeopathic Remedies
- HRT
- Weight loss DS
- Condition-Specific DS
- Herbals
- Minerals
- OTC
- Rx Drugs
- Vitamins

- DS
- Other therapies

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People use DS in various ways

- Use DS & alternative healthcare first
- Use combo DS, RX & OTC drugs simultaneously
- Use Rx drugs first
Implications for Dietitians

- With patients undergoing medical treatment
  - If prescription drugs are prescribed, encourage their use as directed *first*

- Ask about DS use since it is common among the ill
  - Counsel to avoid possible adverse interactions
Implications for Dietitians

- People at special risk
  - Use DS first for treatment
  - Use DS, conventional medical therapies and CAM all at the same time for disease treatment

- Need to note to avoid interactions and failure to apply better tested treatments
Herbals going down over time; condition-specific DS up!

Use past 12 months
Motivations
Do people think they are “deficient”?
Concerned about “deficiencies” in foods, ingredients, and nutrients

Which do you consider deficient in your current diet?
What are consumer perceptions of nutrient/food deficiencies?
Implications

- Consumers mix up poor food choices and true nutrient deficiencies
- Some think that eating less of a food than recommendations is “deficiency”
Implications

- Consumer and medical views of deficiency differ
  - Consumers interpret phrase as:
    - “not getting enough in diet”
Concerned about “deficiencies”

Which do you consider deficient in your current diet?
Validity of dietary deficiency concerns varies

- Some evidence for low intakes in subgroups in for
  - Some nutrients: folic acid, calcium, soy, fiber, potassium
  - Some foods: Whole grains

- But little evidence for others
  - Soy protein and isoflavones
  - Water
  - Omega 3’s?
Concerned about “deficiencies”

Which do you consider deficient in your current diet?

Iron
Water
Omega 3
Fiber
Calcium

Percent

0 20 40 60 80 100

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Implications

- Sizable minority think they have nutrient deficiencies
Those reporting feeling poorly reported more perceived nutrient deficiencies.

However, perceived deficiencies of nutrients & foods not associated with use of DS.
Implications

- People who report a “deficiency” more likely to also report health problems
Why do people use supplements?

- Depends on person’s characteristics
- Also on type of supplement
Personal characteristics

- Sex
  - Big differences by sex on type of DS used

- Poor reported health status
  - More use of herbal, condition-specific DS
  - Less of vitamin minerals
Poor Reported Health Status

- Those in poor physical, emotional or mental health used DS for specific health conditions more

Implication

- Be sure to check DS use in ill
Demographics

- Women more mentions of
  - “MD recommended”
  - “Good for me and family”

Implication:

- Women often traffic cops for DS use in families; enlist their help when DS needed
Why Vitamin Mineral DS important to me

Many drivers

- Overall health/wellness
- Performance/energy
- MD rec
- Px specific health problem
- nutrition
- good for me, family
- Tx specific health issue
- lifestyle changes

Vitamins and Minerals

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**Reasons for first using vitamin mineral DS**

<table>
<thead>
<tr>
<th>Percent</th>
<th>Overall Health/wellness</th>
<th>Performance/energy</th>
<th>Prevent</th>
<th>Doctor Rx</th>
<th>Better for me &amp; family</th>
<th>Nutritional Content</th>
<th>Treat</th>
<th>Lifestyle Change</th>
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- Overall Health/wellness: 60%
- Performance/energy: 20%
- Prevent: 15%
- Doctor Rx: 10%
- Better for me & family: 10%
- Nutritional Content: 5%
- Treat: 5%
- Lifestyle Change: 5%
Why Herbal DS are important to me

Many drivers

- Overall health/wellness
- Performance/energy
- Tx specific health issue
- P x specific health problem
- lifestyle changes
- nutrition
- good for me, family
- MD rec

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Reasons for first using DS

Percent

- Overall Health/wellness
- Performance/energy
- Prevent
- Doctor Rx
- Better for me & family
- Nutritional Content
- Treat
- Lifestyle Change

Herbals
Why *DS* are important to me

- Overall health/wellness
- Performance/energy
- Px specific health problem
- MD rec
- good for me, family
- nutrition
- Tx specific health issue
- Many drivers
- lifestyle changes
- Tx specific health issue
- MD rec
- Px specific health problem
- Performance/energy
- Overall health/wellness

Vitamins and Minerals
Herbals

FNCE06
Reasons for first using DS

- Performance/energy
- Prevent
- Doctor Rx
- Better for me & family
- Nutritional Content
- Treat
- Lifestyle Change

Percent

Vitamin/Minerals
Herbals
Implications

- Many drivers for use
- Differ only slightly by supplement type
Why do people use dietary supplements???
Authoritative Guidance

- The Law:
  - DSHEA 1995:
    - *DS are not for prevention or treatment of disease*

- Experts
  - DS inappropriate as substitutes for evidence-based therapies prescribed by physicians
Consumer view DS as helpful in Px and Tx of many conditions

- Cancer
- Memory
- Lack energy
- Osteoporosis
- Colds & flu
- Arthritis

<table>
<thead>
<tr>
<th>Condition</th>
<th>Tx</th>
<th>Px</th>
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<tr>
<td>Cancer</td>
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<td>Memory</td>
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<td>45</td>
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Consumers view DS as helpful in Px and Tx of many conditions.

Diagram showing preferences for different conditions: depression, stress, heartburn, cholesterol, vision, heart, hi BP.
Agree that taking... is effective in .....(agree completely/somewhat)
Consumers view DS as helpful in Px and Tx of many conditions
Implications

- DS often used in ways differently than the law intends
- Caution needed, especially if for treatment
Are some people readier than others to use dietary supplements?
Readiness for behavioral change

- Prochaska: trans-theoretical model of readiness of behavioral change
- Readiness varies by types of DS
No Need  Need haven't explored  Explored for future use  Gathered information and evaluating alternative  Use infrequently<1yr  Use frequently>1yr

Vitamin/Minerals

Many adopters
No Need haven't explored Explored for future use Gathered information and evaluating alternative Use infrequently >1 yr Use regularly, consistently >1 yr

Very few adopters for herbals.
No Need
Need haven't explored
Explored for future use
Gathered information and evaluating alternative
Use regularly consistently 1 yr
Use infrequently > 1 yr

Vitamin/Minerals
Herbals

Very few adopters for herbals
Many adopters for vitamin minerals
How are motivations and use of DS related?
Do motivations cause use?

- Knowledge → Attitudes → Use

  motivations
Or do people develop motivations to justify use???

- Use $\rightarrow$ Attitudes $\rightarrow$ Knowledge
Are motivations the chicken??

Motivations

Use
Or, are motivations the egg??

Use

Motivations
Implications for dietitians

Some people get in the habit and then find reasons for behavior
- Often due to social influence

- Others operate in a more deliberate manner

- Consider both ways to influence behavior when collecting information about dietary supplement use!
Case: Women in reproductive age group and folic acid DS

- Some get into the habit of taking a folic acid supplement

- Others use only after appealing to logic and attitudes
Conclusions
Conclusions

- Motivations for dietary supplement use complex

- Patterns of use vary depending on supplement
Implications for dietitians

- Many interactions between medications, drugs and dietary supplements

- Check about interactions!

- Put interactions in the chart!
Implications for dietitians

- Probe about dietary supplement use

- To get total dietary intake must include nutrient containing dietary supplements!
Acknowledgements

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  www.NMI solutions.com
Conclusions

- **USE**
  - People vary greatly in dietary supplement use

- **MOTIVATIONS**
  - A substantial minority of people think they are “deficient”; either in foods or nutrients or both
  - Motivations for use vary by
    - **person** (demographics, health status, readiness)
    - **supplement** (nutrient vs herbal/botanical)
  - Some people (nutrient supplement users) are more ready to use DS than others

- **IMPLICATIONS** for dietitians: always ask about DS