Development of an Automated Self-Administered 24-Hour Dietary Recall (ASA24)

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Background

- Usual dietary intake is the relevant exposure
- Impossible to measure directly
- Increasing recognition within field that error in FFQs leads to misinterpretation
- 24-hour recalls contain less error than FFQs and provide details which are of increasing interest
  - Traditionally too expensive and burdensome for many large studies
Vision for ASA24

• Automated
  – Complete system for probing, coding, and calculation of intakes
  – Adaptable to multiple languages
  – Easily updated

• Self-Administered
  – Multiple 24HRs collected for minimal cost

• Web-Based
  – Readily accessible
  – Publicly available
  – Greatly reduced cost of administration
Costs to Administer 24-Hour Recalls

- NDS-R: ≈ $100 per recall
- ASA24: Public use
- Either mode: include costs associated with set up and contacting respondents
- At a minimum, 2 recalls required to assess usual intake
- Many cohorts have more than 100,000 participants
  - The math: $100,000 \times $100 \times 2 = $20,000,000
Based on USDA’s Automated Multiple Pass Method (AMPM)

- AMPM
  - Quick List
  - Forgotten Foods
  - Time and Occasion
  - Detail Cycle
  - Final Probe

- ASA24
  - Quick List
  - Meal Gap
  - Detail Cycle
  - Forgotten Foods
  - Final Probe
Multiple Cognitive Tests

- Meal-based vs. Unstructured Quick List
- Sorting tasks to assess food grouping (for browsing)
- Format for Quick List
- Format for Detail Pass
- Format for use of pictures as portion size aids
Automated Self-Administered 24-Hour Dietary Recall (ASA24)

- Funded by NCI
  - Contract with software developer: Archimage
  - Contract with research firm: Westat
- Collaborators
  - Baylor College of Medicine
  - USDA Center for Nutrition and Policy Promotion
  - Cooperation from USDA Food Surveys Research Group
- Started in Fall 2004
ASA24 Demonstration

http://asa24.westat.com/
ASA24: Additional Features

- Supplement module
- 508 Compliance
- Spanish version
- Kids version
- Meat cooking module
Feasibility Study in AARP

- Pilot study to assess use of multiple web-based instruments in free-living cohort
  - ASA24
  - ACT24 – physical activity 24-hr recall
  - Lifestyle questionnaire

- Evaluation of:
  - Technical performance of software, websites
  - Response rates
  - Data quality
• Compare ASA24 to standard interviewer-administered 24-hour recalls (AMPM) in 1000 participants to assess:
  – Food matches, intrusions, exclusions, means, within person variation, correlations
  – Attrition, response rates

• Small feeding study of 80 participants:
  – Compare accuracy of both types of recalls to truth
Researcher Site

• Allows researchers to register a study so that participants can use ASA24
  – Multiple studies possible

• PIs:
  – Provide IDs of participants
  – Provide dates participants are to complete ASA24
  – Set parameters around which completion is acceptable (time to complete, make up dates)
  – Contact participants to complete ASA24
Researcher Site Demo

FAQs and Availability

• FAQs
  – Time to complete: 20-30 minutes
  – Favorites: next version

• Demo for researchers:

• Available for use in research: April
ASA24 Crew

- NCI:
  - Claire Bosire
  - Meredith Morrissette
  - Nancy Potischman
  - Amy F. Subar
  - Fran Thompson
  - Gordon Willis

- Westat:
  - Jennifer Crafts
  - Steve Hull
  - Susie McNutt
  - Beth Mittl
  - Thea Zimmerman

- Archimage:
  - Richard Buday
  - Ramsey Tapia

- Bayor:
  - Tom Baranowski
  - Noemi Islam

- USDA
  - Patricia Guenther (CNPP)

- Funding Sources:
  - NCI, DCCPS
  - NCI, DCEG
  - ODS
  - NHLBI
  - NCI, DCP
Save the Date!

7th International Conference on Diet and Activity Methods (ICDAM 7)
Washington, DC

Conference Dates: June 5–7, 2009
Pre-Conference Workshops: June 4, 2009

Goal: To provide a forum for sharing knowledge on diet and physical activity assessment methods

Late Registration Deadline: May 5, 2009
For more information: http://www.icdam.org/