

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: \approx \$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: $100,000 * \$100 * 2 = \$20,000,000$

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

Comparison and Validation Study

- 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

- <http://76.12.107.248/asa24/App.html>

FAQs and Availability

- FAQs
 - Time to complete: 20-30 minutes
 - Favorites: next version
- Demo for researchers:
<http://riskfactor.cancer.gov/tools/instruments/asa24.html>
- 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/>