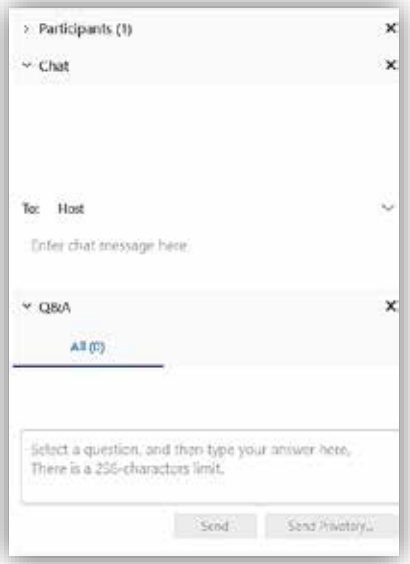
Orientation to the 2020 Version of ASA24

NIH NATIONAL CANCER INSTITUTE

September 14, 2020

Using WebEx and Webinar Training Logistics



- All lines will be in listen-only mode
- Submit questions at any time during the presentation. Type into the Q&A Panel and select Host
- A moderator will ask the question on your behalf during the Q&A portions of the training
- This training webinar is being recorded and will be posted at a later date

Presenters:

Kirsten Herrick, Ph.D., M.Sc

Program Director and Nutritionist, NCI

Thea Palmer Zimmerman, M.S., R.D.

Nutritionist, Westat Inc.

Amy Miller, M.P.H.

Project Manager, Westat Inc.

Deirdre Douglass, M.S., R.D.

Nutritionist, Westat Inc.

Glenn Frankel, M.C.R.P.

UX Designer, Westat Inc.

This webinar is being recorded and will be available for later viewing, along with answers to questions at https://epi.grants.cancer.gov/asa24

Acknowledgements:

Westat
Tina Adler
Chris Bingley
Amber Brown McFadden
Sebastian Calle
David Dion
Deirdre Douglass
Stephanie Fears
Mauricio Flores
Glenn Frankel
Sophia Jang
Jamie Jao
Dalia Kahane
Yevgeniy Kalmanovich
Ben Lott
Noemi Lucciola
Lindsay McDougal
Matthew McKennirey
Amy Miller
Beth Mittl
Viji Narayanaswamy
Tom Nicholson
Tara Paul
Ann Riederer
Wenyi Su
Thomas Nicholas
Leon Tiet
Sekou Yoda
Nadia Zaghal
Binpeng Zhang
Thea Palmer Zimmerman

NCI/NIH
Everett Carpenter
Christie Kaefer
Jennifer Lerman
James McClain
Nancy Potischman
Lauren O'Connor
Amy Subar
Edwina Wambogo
Gordon Willis

USDA
TusaRebecca Schap

University of Waterloo
Sharon Kirkpatrick

USDA FSRG provision of supporting databases
Alanna Moshfegh

Funded in part by:

NIH Funders

National Cancer Institute
- Division of Cancer Control and Population Science
- Division of Cancer Prevention
- Division of Cancer Epidemiology and Genetics

Office of Dietary Supplements
National Institute of Diabetes and Digestive and Kidney Diseases
National Heart Lung and Blood Institute
National Institute of Child Health and Human Development
National Institute of Alcohol Abuse and Alcoholism
Office of Disease Prevention
Office of Behavioral and Social Science Research

Funded in part by:

Funders of ASA24-Canadian Version
Health Canada's Food Directorate
Alberta Cancer Foundation
Canadian Partnership Against Cancer
University of Waterloo researchers supported by funding from the Canadian Institutes of Health Research and the Canadian Cancer Society

Funders of ASA24-Australian Version
IPAN, Deakin University
University of Newcastle
University of Sydney
University of Wollongong
Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Outline for today's webinar

- Overview of the Automated Self-Administered 24-hour Dietary Assessment Tool (ASA24)
- Information about the new U.S. version: ASA24-2020
- Information about upcoming enhancements
- Common questions
- Discussion and questions

What is ASA24?

- Fully automated, web-based, self-administered 24-hour dietary assessment tool
  - Web-based system for probing, coding, and calculation of intakes
- Developed by NCI and Westat
  - Format based on Automated Multiple-Pass Method (AMPM) interviewer-administered recalls collected in NHANES
- Publicly available at no cost to researchers, clinicians, and educators
- Allows collection of multiple recalls or records in large-scale nutrition research

Overview of the ASA24 System

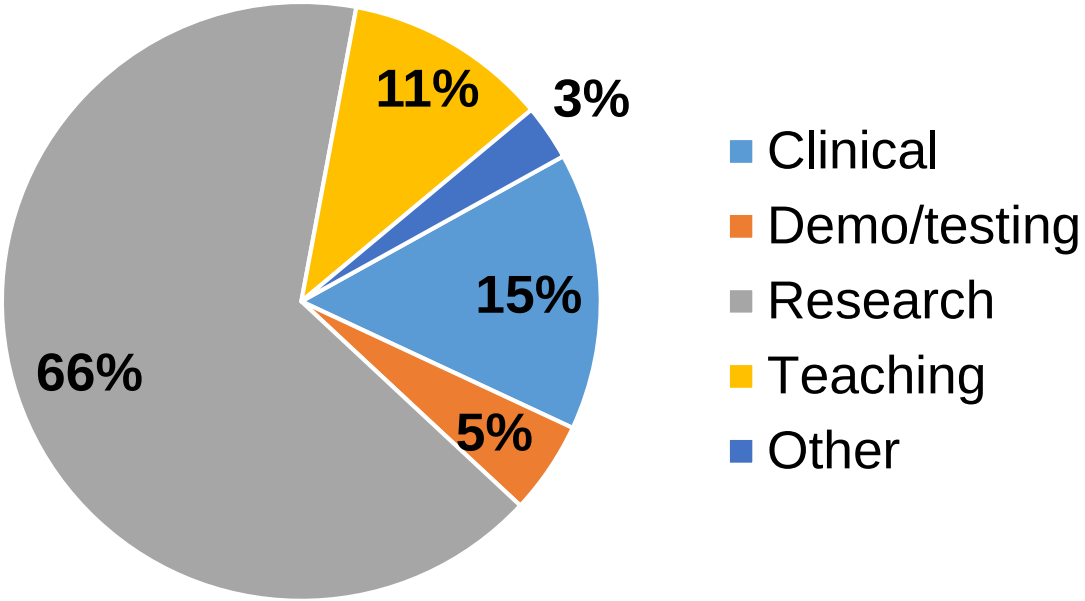
ASA24 by the numbers

- From June 2009 through August 2020
  - More than 7,300 studies registered
  - More than 572,000 recalls/record days collected

Usage by version

	ASA24-2016	ASA24-2018	ASA24-2020
Studies registered	2,917	1,814	385
Recalls/records collected	209,428	102,907	10,546
Studies registered per month	55	82	64

How ASA24 is being used?



Publications using ASA24:
https://epi.grants.cancer.gov/asa24/resources/publications.html

ASA24

Automated Self-Administered 24-Hour Dietary Assessment Tool

How long does it take to complete a 24-hour recall?

*Information based on active versions of the ASA24 system

ASA24 contains many options and optional modules for research studies.

multiple vs. single logins

completion time restricted to 24 hours

supplements

midnight-to-midnight vs. past 24 hours

food source

electronic device use during meals

location of meals

with whom meals were eaten

New to ASA24-2020 (U.S. version only)

Updated foods and supplements to reflect these databases:

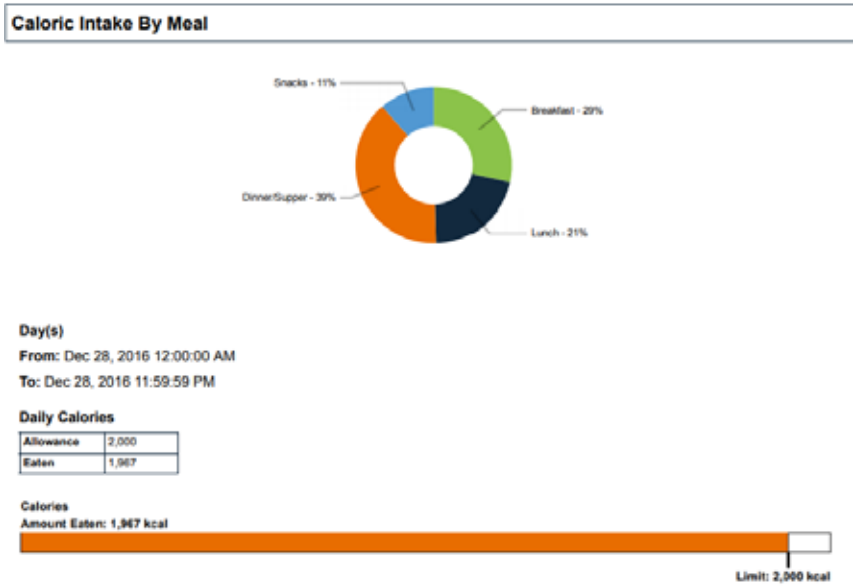
- Food and Nutrient Database for Dietary Studies (FNDDS) 2015-16
- Food Patterns Equivalents Database (FPED) 2015-16
- National Health and Nutrition Examination Survey (NHANES) Dietary Supplement Database (DSD) 2015-16

Features

- New Respondent Nutrition Report
- Improved search function

ASA24
Automated Self-Administered 24-Hour Dietary Assessment Tool

Respondent Nutrition Report



ASA24
Automated Self-Administered 24-Hour Dietary Assessment Tool

New to ASA24-2020:

Revised Respondent Nutrition Report

Total Calorie Consumption

Calories
Most foods and many beverages contain calories. A person's calorie needs each day depends on factors such as age, gender, height, weight, and level of physical activity. In addition, a need to lose, maintain, or gain weight affects how many calories should be consumed. The target range for percent of calories from carbohydrates, protein, and fat listed here represent the range that is associated with providing adequate intakes of essential nutrients and a reduced risk of chronic disease.

Alcohol
Alcoholic beverage intake is not recommended in the *Dietary Guidelines for Americans*. If alcohol is consumed, it should be in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age. There are also many circumstances in which individuals should not drink, such as during pregnancy.

Sources
2015 -2020 Dietary Guidelines for Americans (https://health.gov/dietaryguidelines/2015/guidelines/) and Dietary Reference Intakes (http://www.nationalacademies.org/hmd/Reports/2002/Dietary-Reference-Intakes-for-Energy-Carbohydrate-Fiber-Fat-Fatty-Acids-Cholesterol-Protein-and-Amino-Acids.aspx).

ASA24

Automated Self-Administered 24-Hour Dietary Assessment Tool

"It is very informative and the colors and graphs make it easy to identify the important information."

"I like that it had the little extension that tells me that I am over."

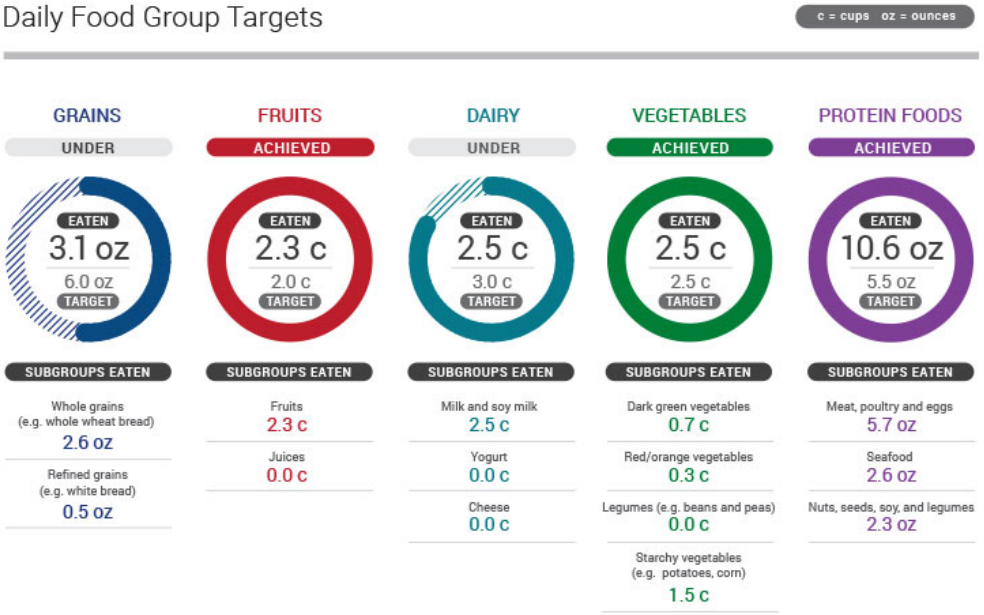
Total Calorie Consumption

Calories
Most foods and many beverages contain calories. A person's calorie needs each day depends on factors such as age, gender, height, weight, and level of physical activity. In addition, a need to lose, maintain, or gain weight affects how many calories should be consumed. The target range for percent of calories from carbohydrates, protein, and fat listed here represent the range that is associated with providing adequate intakes of essential nutrients and a reduced risk of chronic disease.

Alcohol
Alcoholic beverage intake is not recommended in the *Dietary Guidelines for Americans*. If alcohol is consumed, it should be in moderation—up to one drink per day for women and up to two drinks per day for men—and only by adults of legal drinking age. There are also many circumstances in which individuals should not drink, such as during pregnancy.

Sources
2015 -2020 Dietary Guidelines for Americans (https://health.gov/dietaryguidelines/2015/guidelines/) and Dietary Reference Intakes (http://www.nationalacademies.org/hmd/Reports/2002/Dietary-Reference-Intakes-for-Energy-Carbohydrate-Fiber-Fat-Fatty-Acids-Cholesterol-Protein-and-Amino-Acids.aspx).

"I think it is good. It is not overwhelming. The text at the bottom is really good. It advises me on what are some good eating habits."



Portion sizes for foods within a food group varies. To learn more about portion sizes, visit https://health.gov/dietaryguidelines/2015/guidelines/infographic/1-1/.

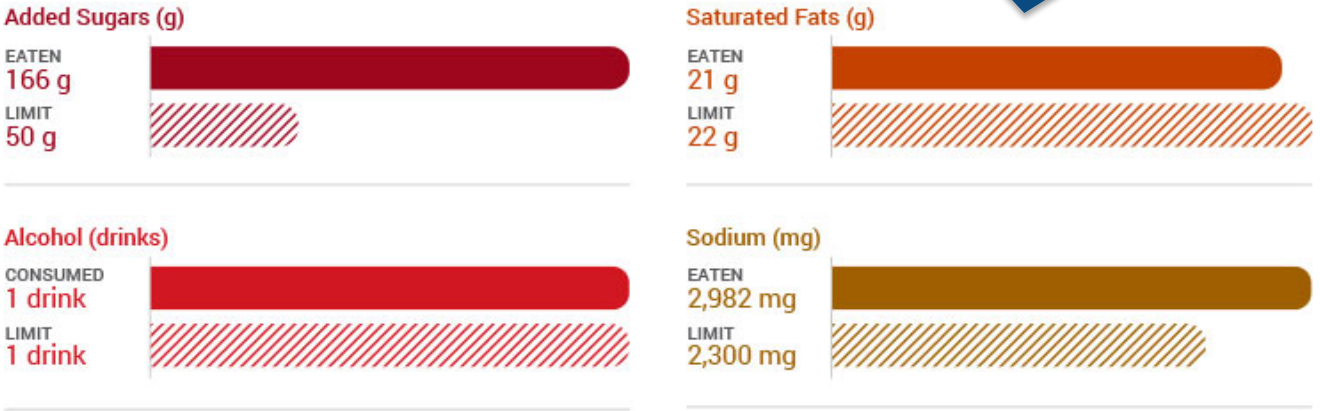
To achieve a healthy eating pattern, the *Dietary Guidelines for Americans* encourage you to:

- Make half your grains whole grains. Limit products made with refined grains, especially those high in fat, sugars, and/or sodium, such as cookies, cakes, and some snack foods.
- Eat a variety of fruits, emphasizing whole fruits. When consuming juice, choose 100% juices without added sugars.
- Eat a variety of colors and types of vegetables, including dark green, red and orange, and legumes (beans and peas).
- Choose fat-free or low-fat dairy, including milk, yogurt, cheese, and/or fortified soy beverages.
- Eat a variety of protein foods, with an emphasis on seafood and plant proteins, such as legumes (beans and peas), nuts, seeds, and soy products.

ASA24
Automated Self-Administered 24-Hour Dietary Assessment Tool

"It is organized the way it is supposed to be. I like it. It is very clear what it is trying to tell me."

Nutrients and Foods to Limit

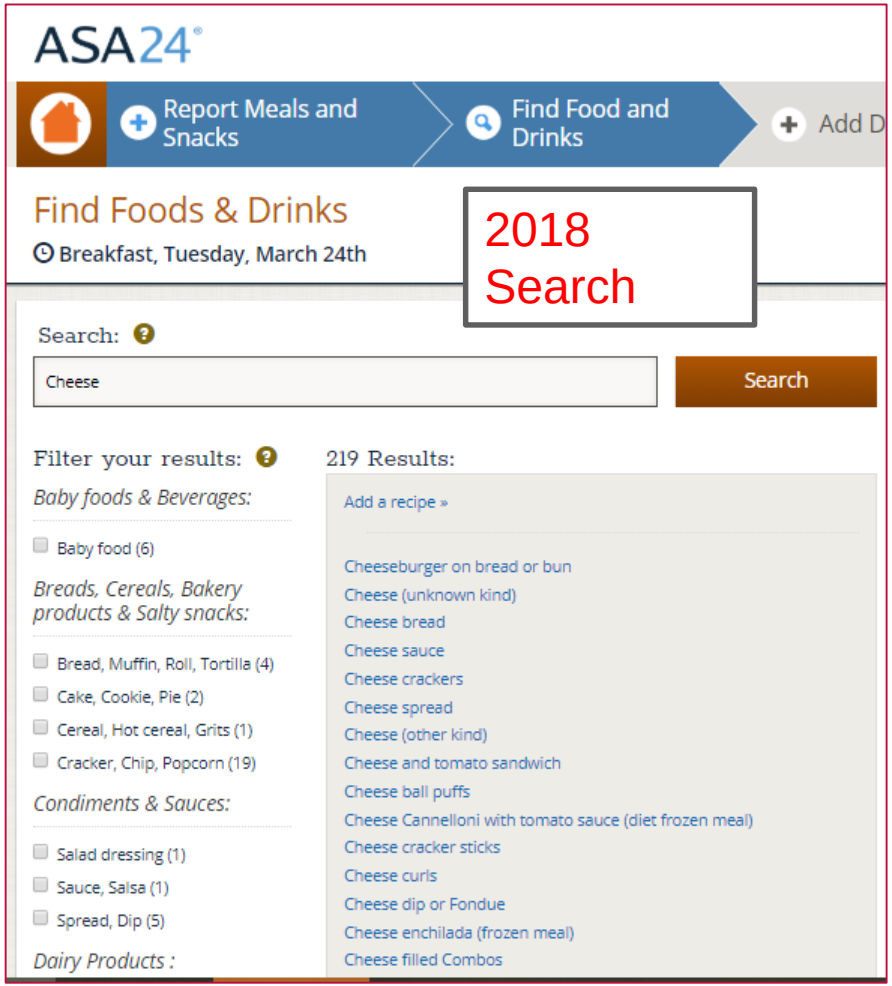


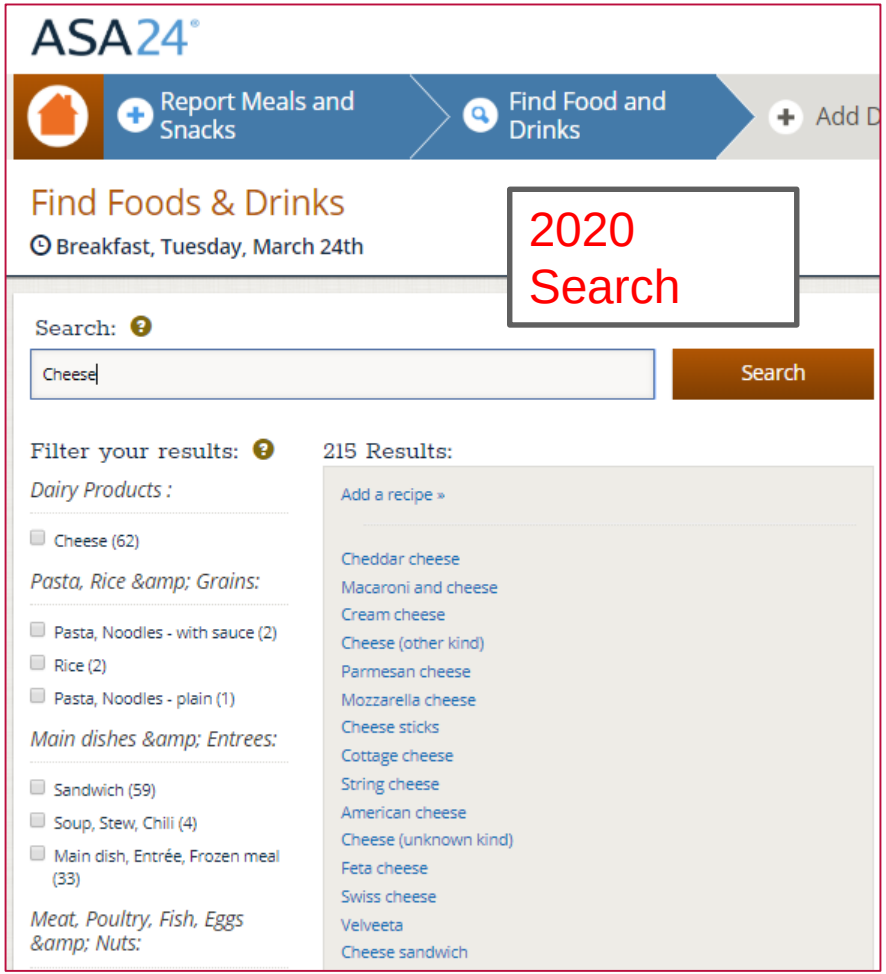
Many of the foods and beverages we eat contain sodium, saturated fats, and added sugars (sweeteners added to foods/beverages during processing or by consumers). Making careful choices keeps amounts of these components within their limits while meeting nutrient needs to achieve a healthy eating pattern.

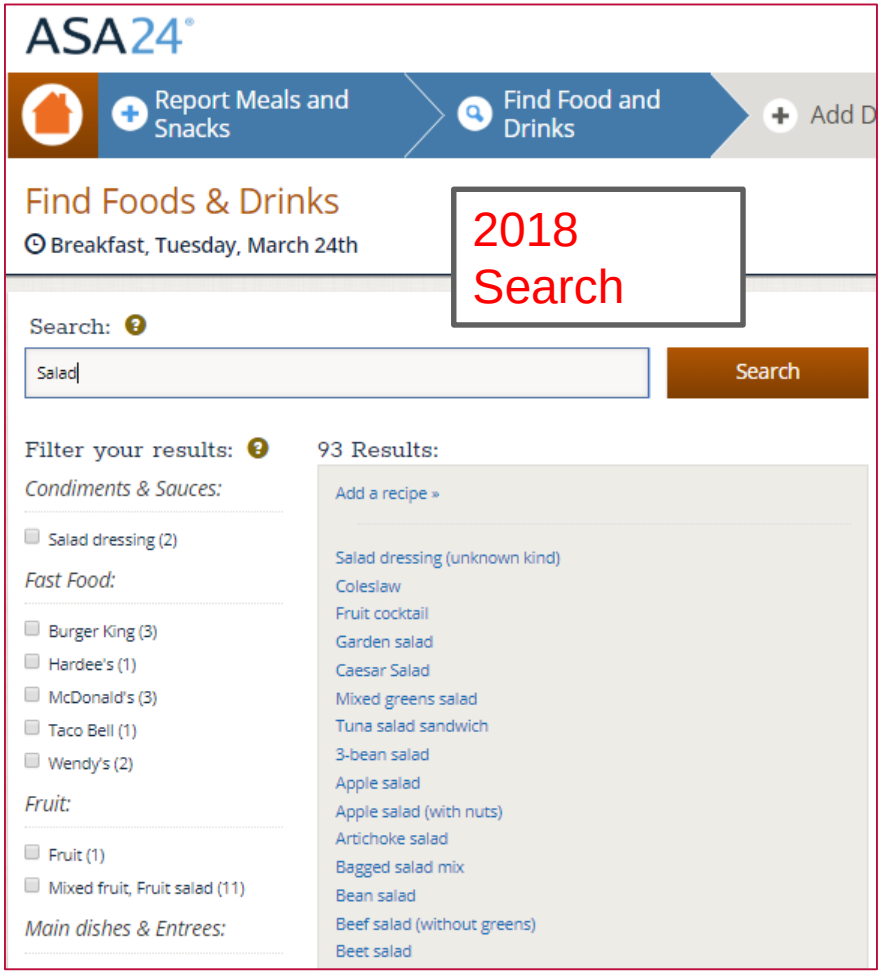
Source: https://health.gov/dietaryguidelines/2015/guidelines/chapter-1/a-closer-look-inside-healthy-eating-patterns/#food-groups

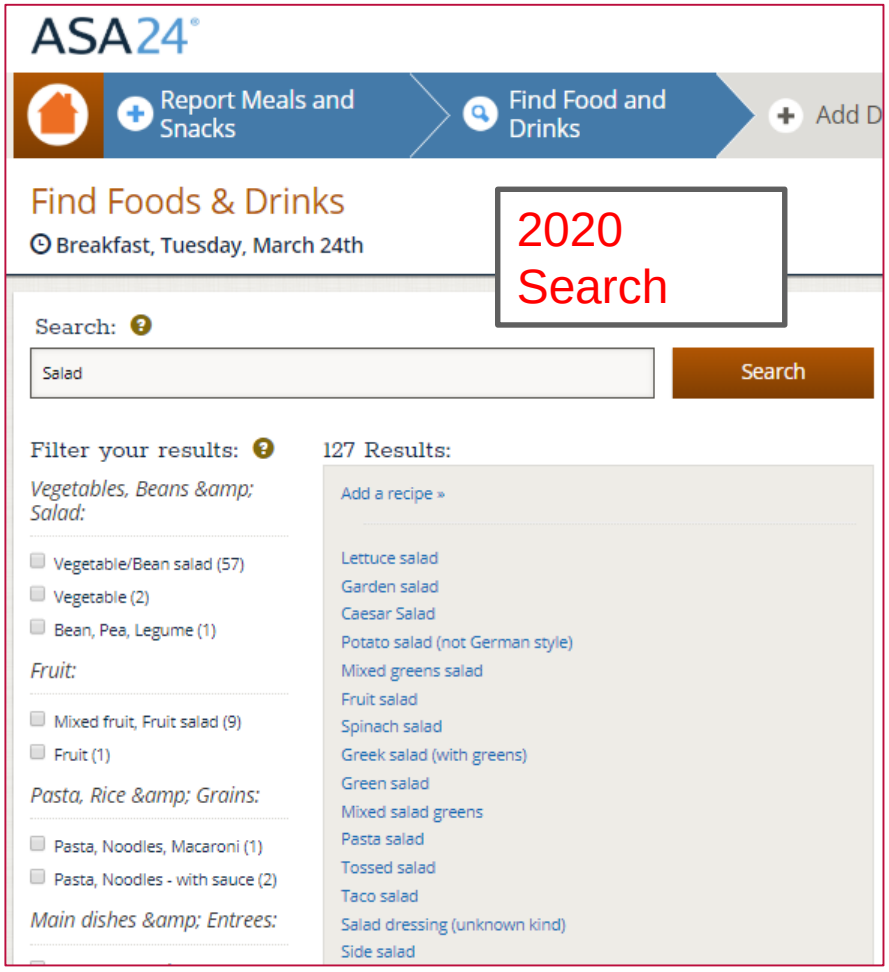
Enhanced Search Tool

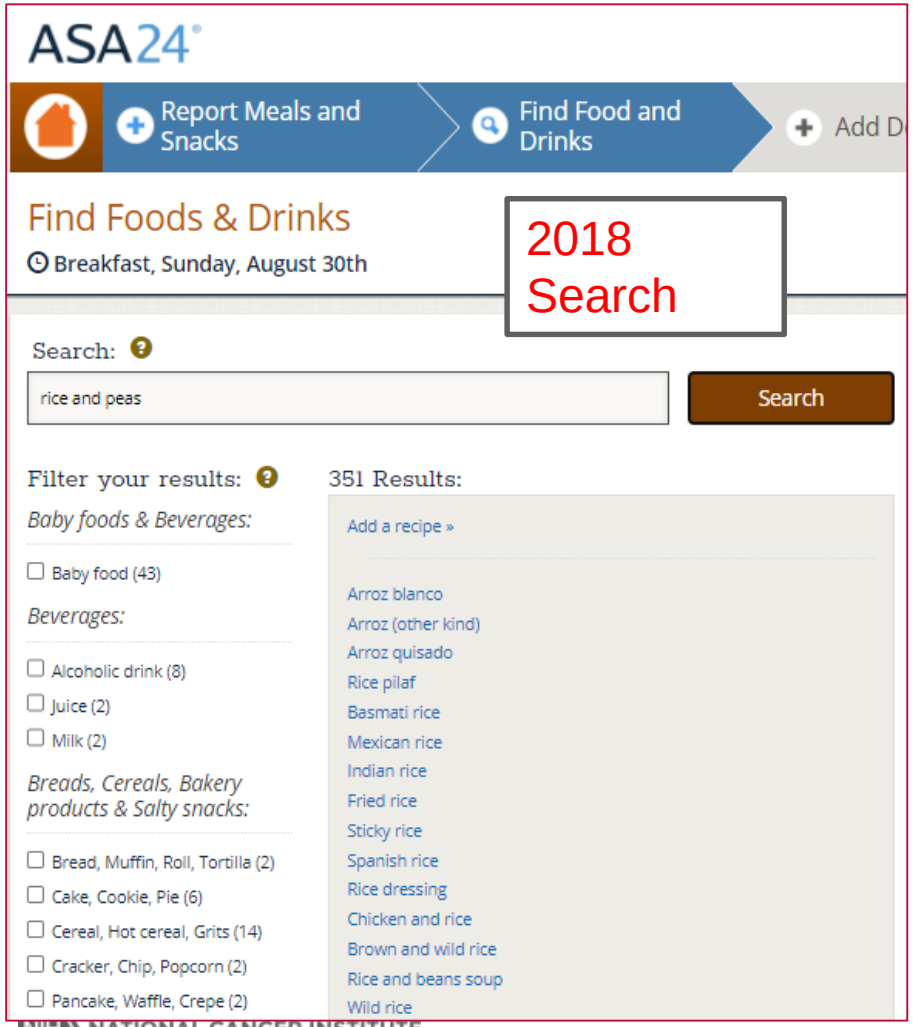
- Improved food list matching
- Improved multi-food match, e.g. carrots and peas
- Refine the popularity scoring within search algorithm

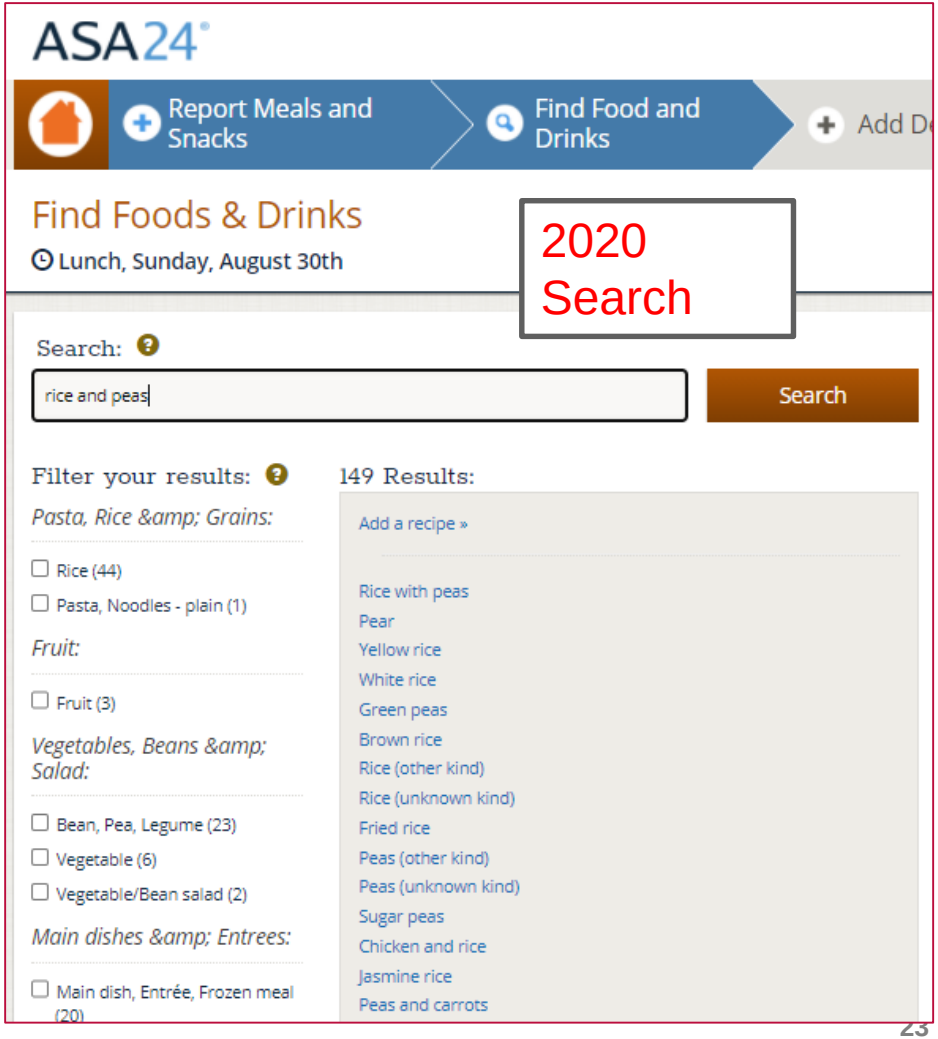

ASA24
Report Meals and Snacks
Find Food and Drinks
Add D
Find Foods & Drinks
Breakfast, Tuesday, March 24th
2018 Search
Search:
Cheese
Search
Filter your results:
Baby foods & Beverages:
Baby food (6)
Breads, Cereals, Bakery products & Salty snacks:
Bread, Muffin, Roll, Tortilla (4)
Cake, Cookie, Pie (2)
Cereal, Hot cereal, Grits (1)
Cracker, Chip, Popcorn (19)
Condiments & Sauces:
Salad dressing (1)
Sauce, Salsa (1)
Spread, Dip (5)
Dairy Products :
219 Results:
Add a recipe »
Cheeseburger on bread or bun
Cheese (unknown kind)
Cheese bread
Cheese sauce
Cheese crackers
Cheese spread
Cheese (other kind)
Cheese and tomato sandwich
Cheese ball puffs
Cheese Cannelloni with tomato sauce (diet frozen meal)
Cheese cracker sticks
Cheese curls
Cheese dip or Fondue
Cheese enchilada (frozen meal)
Cheese filled Combos


ASA24
Report Meals and Snacks
Find Food and Drinks
Add D
Find Foods & Drinks
Breakfast, Tuesday, March 24th
2020 Search
Search:
Cheese
Search
Filter your results:
Dairy Products :
Cheese (62)
Pasta, Rice & Grains:
Pasta, Noodles - with sauce (2)
Rice (2)
Pasta, Noodles - plain (1)
Main dishes & Entrees:
Sandwich (59)
Soup, Stew, Chili (4)
Main dish, Entrée, Frozen meal (33)
Meat, Poultry, Fish, Eggs & Nuts:
215 Results:
Add a recipe »
Cheddar cheese
Macaroni and cheese
Cream cheese
Cheese (other kind)
Parmesan cheese
Mozzarella cheese
Cheese sticks
Cottage cheese
String cheese
American cheese
Cheese (unknown kind)
Feta cheese
Swiss cheese
Velveeta
Cheese sandwich


ASA24
Report Meals and Snacks
Find Food and Drinks
Add D
Find Foods & Drinks
Breakfast, Tuesday, March 24th
2018 Search
Search:
Salad
Search
Filter your results:
Condiments & Sauces:
Salad dressing (2)
Fast Food:
Burger King (3)
Hardee's (1)
McDonald's (3)
Taco Bell (1)
Wendy's (2)
Fruit:
Fruit (1)
Mixed fruit, Fruit salad (11)
Main dishes & Entrees:
93 Results:
Add a recipe »
Salad dressing (unknown kind)
Coleslaw
Fruit cocktail
Garden salad
Caesar Salad
Mixed greens salad
Tuna salad sandwich
3-bean salad
Apple salad
Apple salad (with nuts)
Artichoke salad
Bagged salad mix
Bean salad
Beef salad (without greens)
Beet salad


ASA24
Report Meals and Snacks
Find Food and Drinks
Add D
Find Foods & Drinks
Breakfast, Tuesday, March 24th
2020 Search
Search:
Salad
Search
Filter your results:
Vegetables, Beans & Salad:
Vegetable/Bean salad (57)
Vegetable (2)
Bean, Pea, Legume (1)
Fruit:
Mixed fruit, Fruit salad (9)
Fruit (1)
Pasta, Rice & Grains:
Pasta, Noodles, Macaroni (1)
Pasta, Noodles - with sauce (2)
Main dishes & Entrees:
127 Results:
Add a recipe »
Lettuce salad
Garden salad
Caesar Salad
Potato salad (not German style)
Mixed greens salad
Fruit salad
Spinach salad
Greek salad (with greens)
Green salad
Mixed salad greens
Pasta salad
Tossed salad
Taco salad
Salad dressing (unknown kind)
Side salad


ASA24
Report Meals and Snacks
Find Food and Drinks
Add D
Find Foods & Drinks
Breakfast, Sunday, August 30th
2018 Search
Search:
rice and peas
Search
Filter your results:
Baby foods & Beverages:
Baby food (43)
Beverages:
Alcoholic drink (8)
Juice (2)
Milk (2)
Breads, Cereals, Bakery products & Salty snacks:
Bread, Muffin, Roll, Tortilla (2)
Cake, Cookie, Pie (6)
Cereal, Hot cereal, Grits (14)
Cracker, Chip, Popcorn (2)
Pancake, Waffle, Crepe (2)
351 Results:
Add a recipe »
Arroz blanco
Arroz (other kind)
Arroz quisado
Rice pilaf
Basmati rice
Mexican rice
Indian rice
Fried rice
Sticky rice
Spanish rice
Rice dressing
Chicken and rice
Brown and wild rice
Rice and beans soup
Wild rice

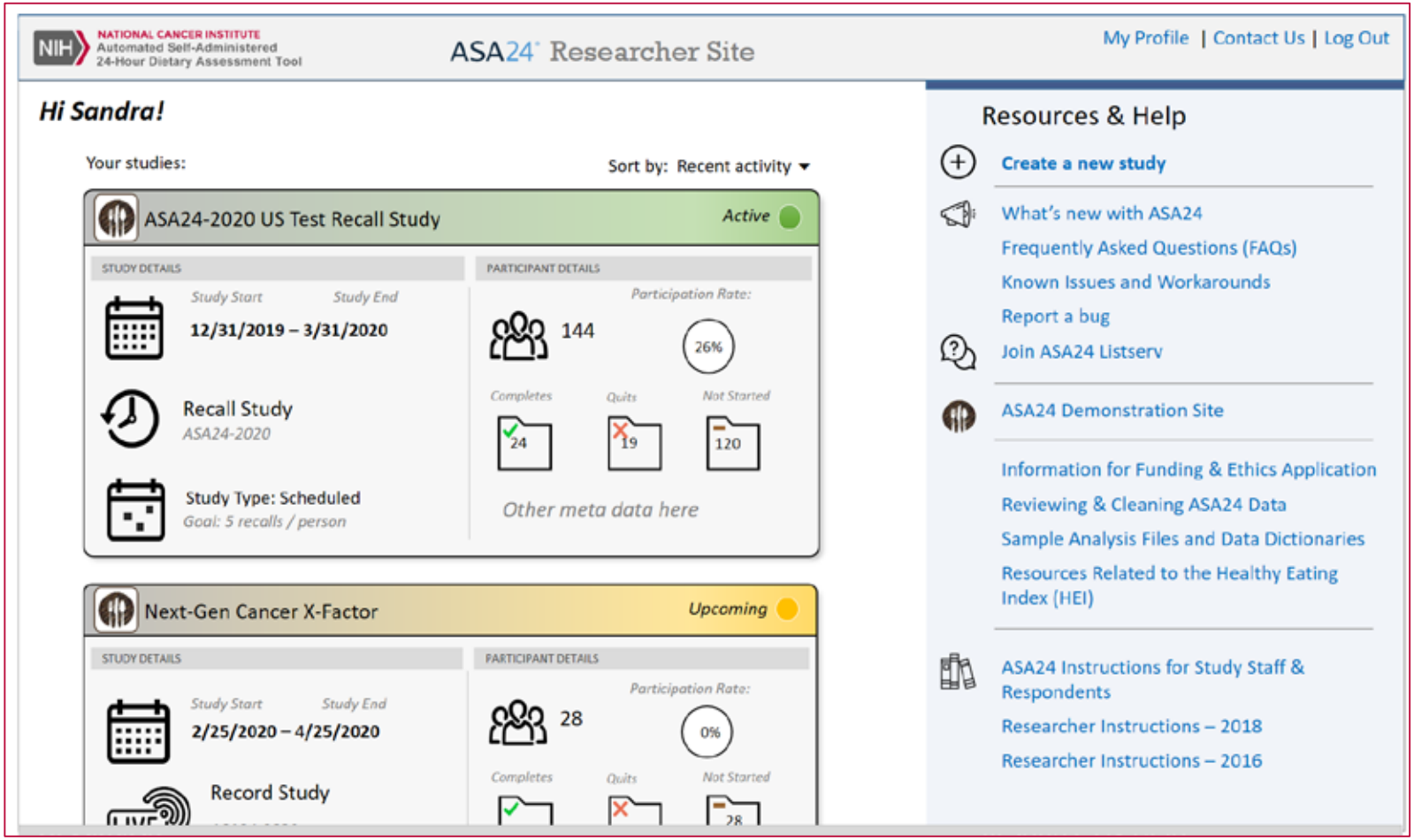

ASA24
Report Meals and Snacks
Find Food and Drinks
Add D
Find Foods & Drinks
Lunch, Sunday, August 30th
2020 Search
Search:
rice and peas
Search
Filter your results:
Pasta, Rice & Grains:
Rice (44)
Pasta, Noodles - plain (1)
Fruit:
Fruit (3)
Vegetables, Beans & Salad:
Bean, Pea, Legume (23)
Vegetable (6)
Vegetable/Bean salad (2)
Main dishes & Entrees:
Main dish, Entrée, Frozen meal (20)
149 Results:
Add a recipe »
Rice with peas
Pear
Yellow rice
White rice
Green peas
Brown rice
Rice (other kind)
Rice (unknown kind)
Fried rice
Peas (other kind)
Peas (unknown kind)
Sugar peas
Chicken and rice
Jasmine rice
Peas and carrots

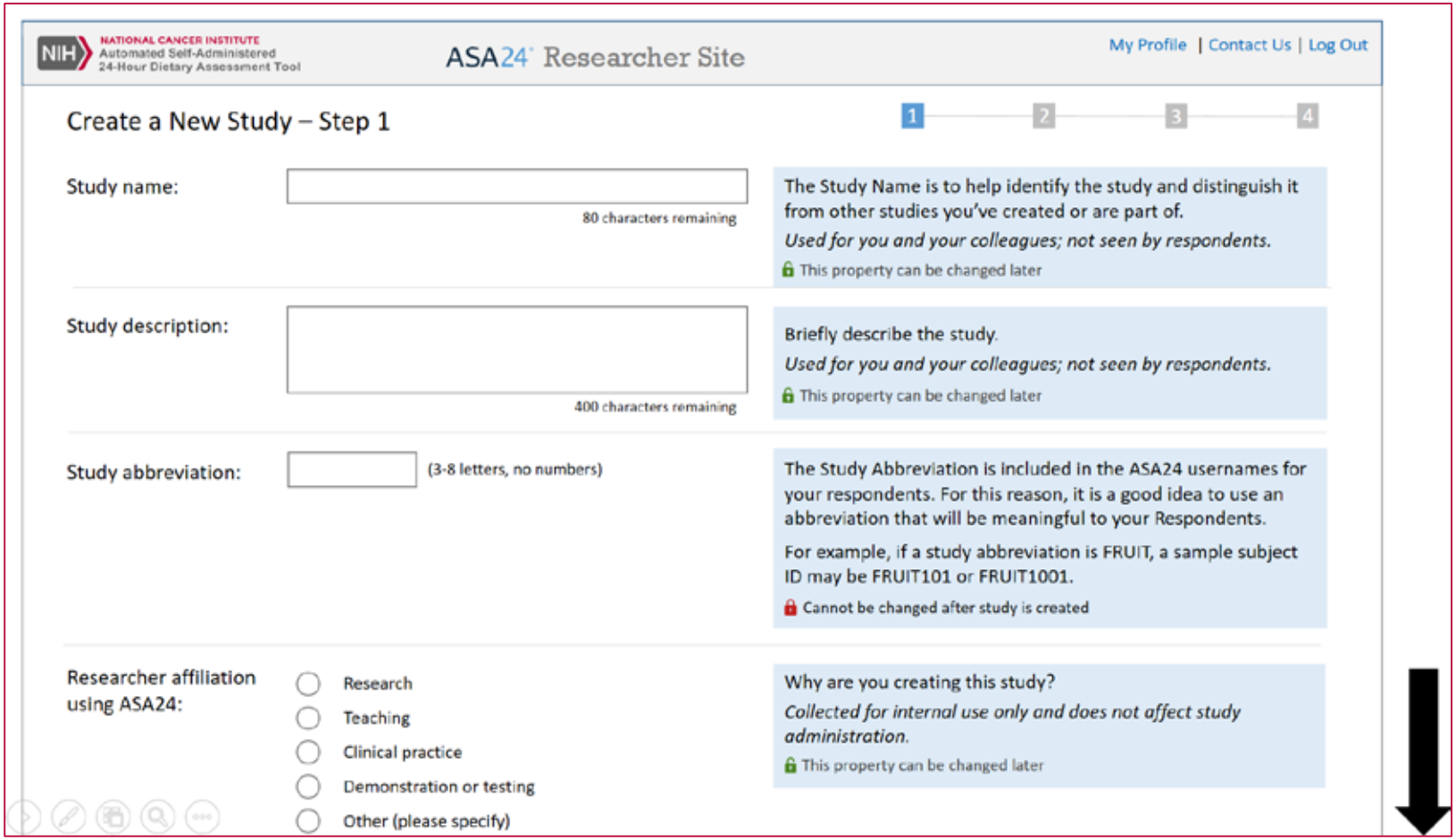
What is next for ASA24?

- Migration to the cloud
- New module that will collect time of waking and sleeping
- New tool to add foods, beverages & supplements to ASA24
- Redesign of the researcher website

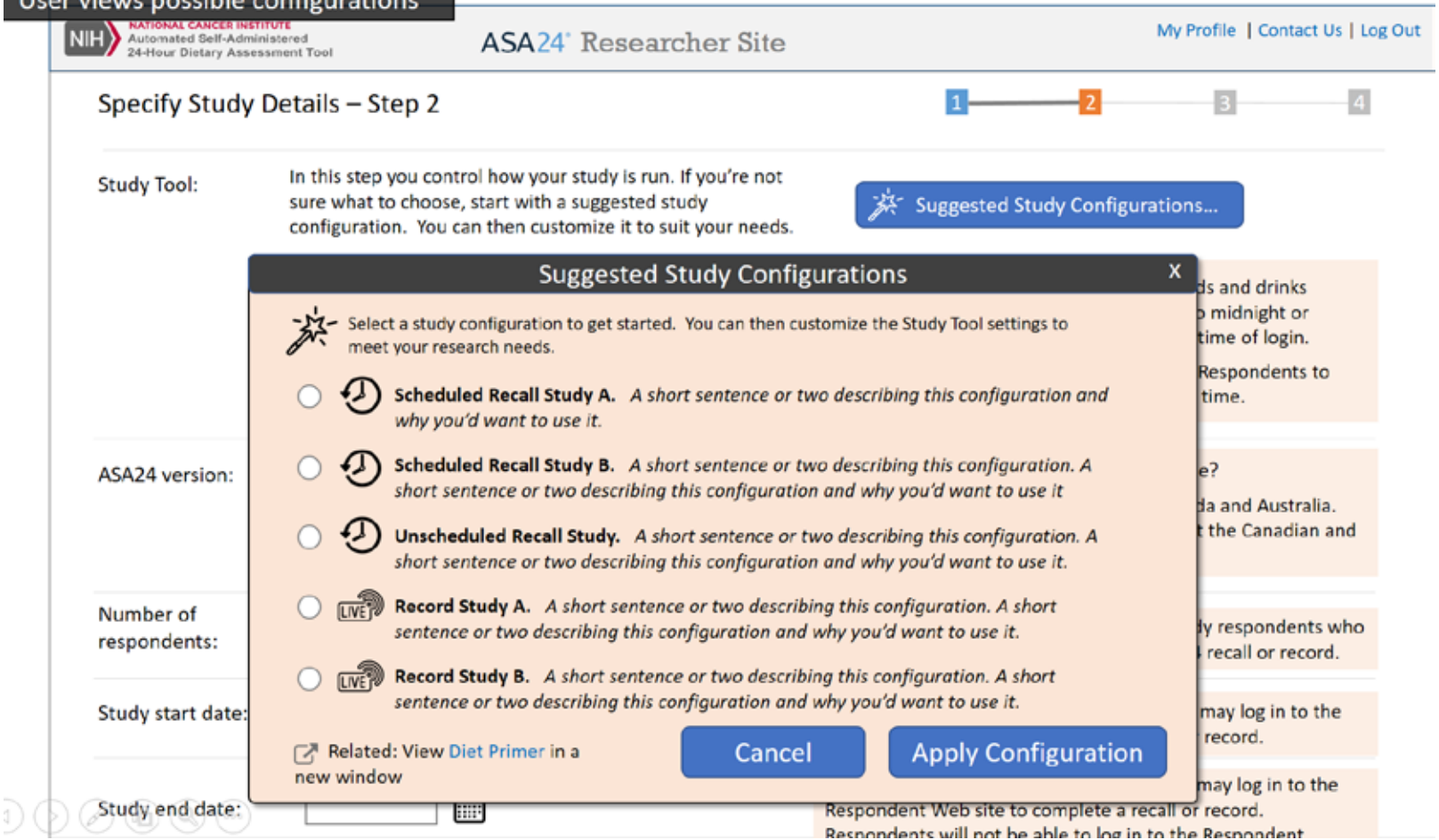
Researcher website redesign

- Goals
  - Visual refresh / make the site feel clean & modern
  - Improve overall user experience
  - Improve navigation
    - Make things easier to find
    - Enable further expansion
  - “Unbury” the rich help information

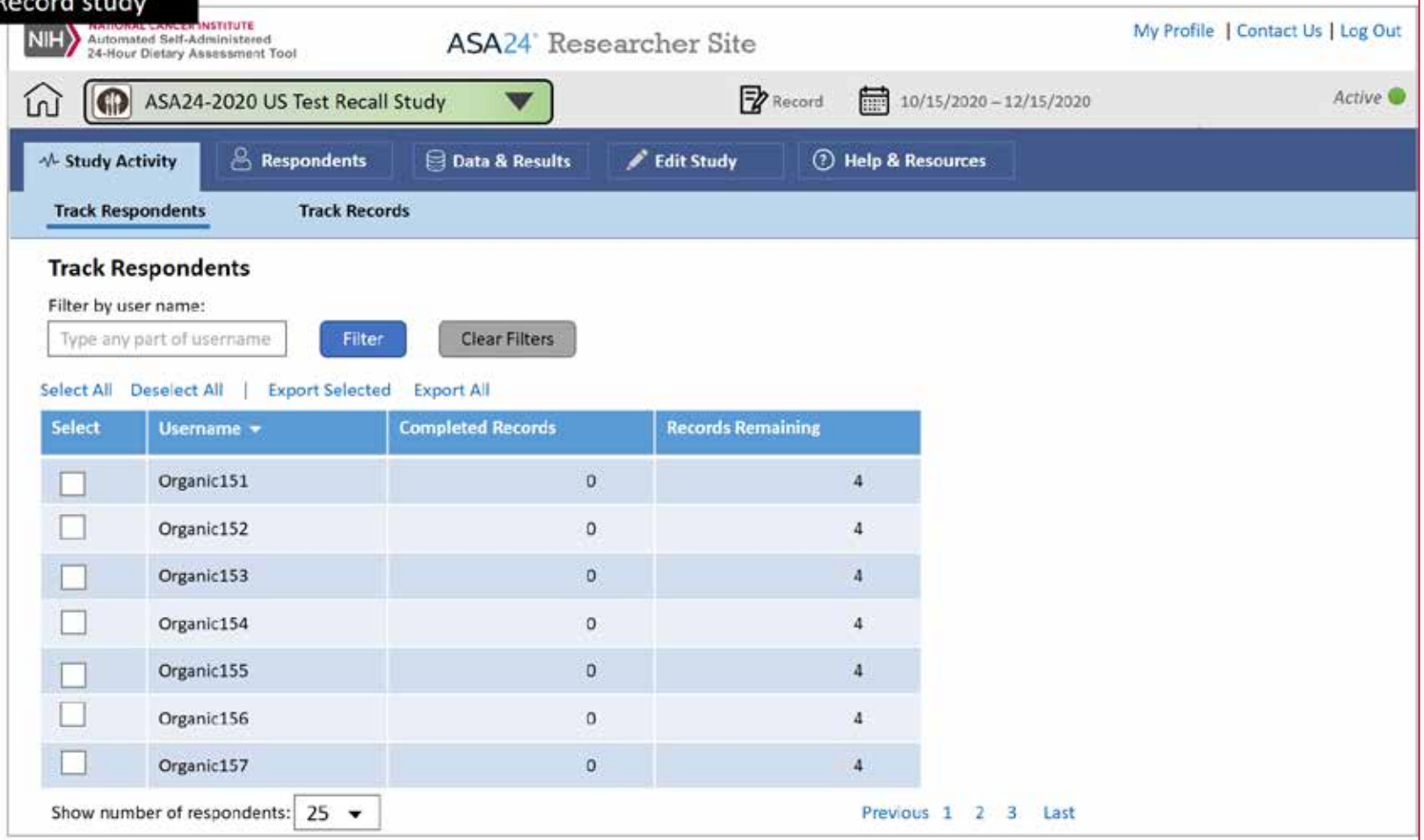

NIH NATIONAL CANCER INSTITUTE
Automated Self-Administered
24-Hour Dietary Assessment Tool
ASA24® Researcher Site
My Profile | Contact Us | Log Out
Hi Sandra!
Your studies:
Sort by: Recent activity
ASA24-2020 US Test Recall Study
Active
STUDY DETAILS
Study Start
Study End
12/31/2019 – 3/31/2020
Recall Study
ASA24-2020
Study Type: Scheduled
Goal: 5 recalls / person
PARTICIPANT DETAILS
Participation Rate:
144
26%
Completes
Quits
Not Started
24
19
120
Other meta data here
Next-Gen Cancer X-Factor
Upcoming
STUDY DETAILS
Study Start
Study End
2/25/2020 – 4/25/2020
Record Study
PARTICIPANT DETAILS
Participation Rate:
28
0%
Completes
Quits
Not Started
28
Resources & Help
Create a new study
What's new with ASA24
Frequently Asked Questions (FAQs)
Known Issues and Workarounds
Report a bug
Join ASA24 Listserv
ASA24 Demonstration Site
Information for Funding & Ethics Application
Reviewing & Cleaning ASA24 Data
Sample Analysis Files and Data Dictionaries
Resources Related to the Healthy Eating Index (HEI)
ASA24 Instructions for Study Staff & Respondents
Researcher Instructions – 2018
Researcher Instructions – 2016

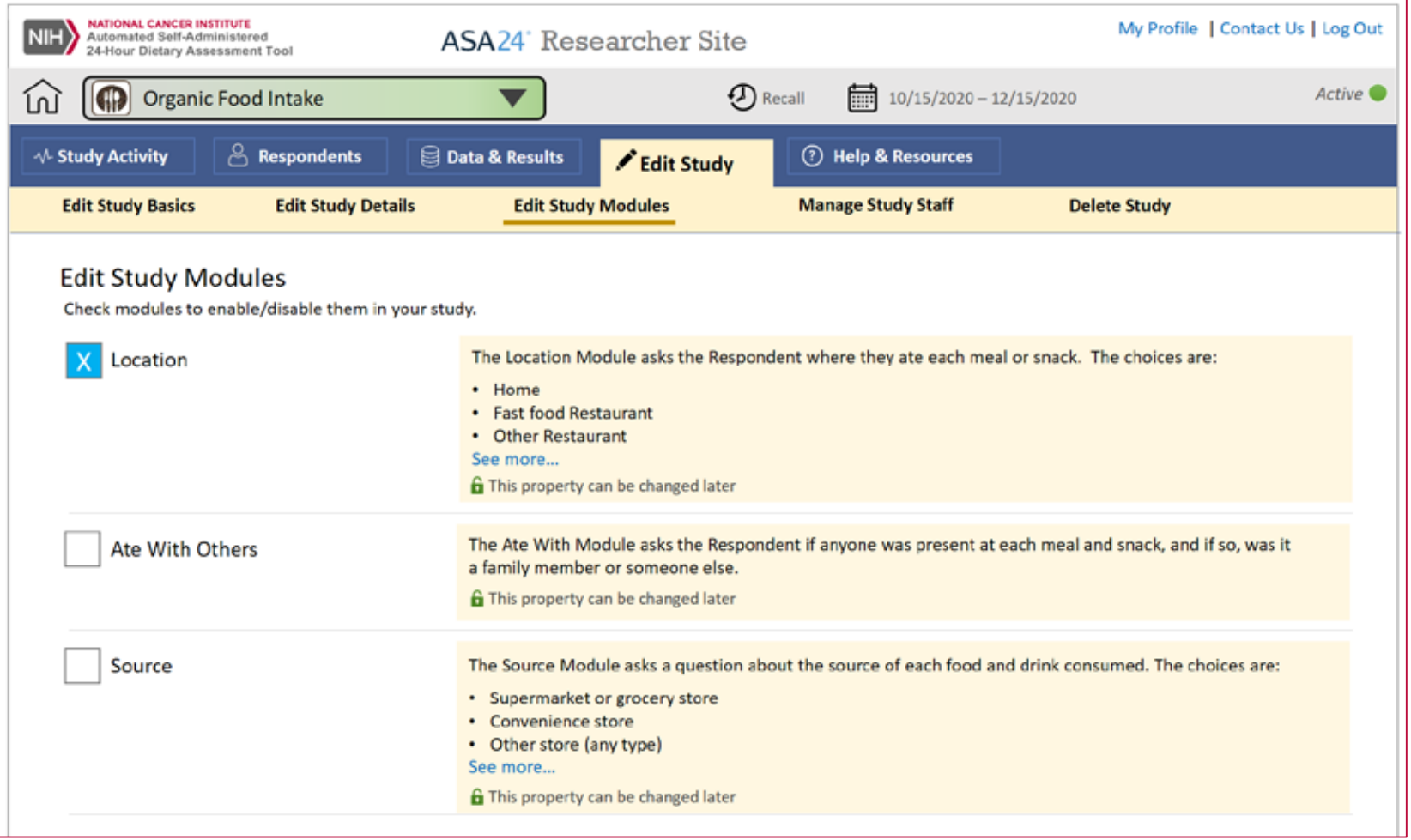

NATIONAL CANCER INSTITUTE
Automated Self-Administered 24-Hour Dietary Assessment Tool
ASA24® Researcher Site
My Profile | Contact Us | Log Out
Create a New Study – Step 1
1 2 3 4
Study name:
80 characters remaining
The Study Name is to help identify the study and distinguish it from other studies you've created or are part of.
Used for you and your colleagues; not seen by respondents.
This property can be changed later
Study description:
400 characters remaining
Briefly describe the study.
Used for you and your colleagues; not seen by respondents.
This property can be changed later
Study abbreviation:
(3-8 letters, no numbers)
The Study Abbreviation is included in the ASA24 usernames for your respondents. For this reason, it is a good idea to use an abbreviation that will be meaningful to your Respondents.
For example, if a study abbreviation is FRUIT, a sample subject ID may be FRUIT101 or FRUIT1001.
Cannot be changed after study is created
Researcher affiliation using ASA24:
Research
Teaching
Clinical practice
Demonstration or testing
Other (please specify)
Why are you creating this study?
Collected for internal use only and does not affect study administration.
This property can be changed later

User views possible configurations



Record study




NATIONAL CANCER INSTITUTE
Automated Self-Administered
24-Hour Dietary Assessment Tool
ASA24® Researcher Site
My Profile | Contact Us | Log Out
Organic Food Intake
Recall
10/15/2020 – 12/15/2020
Active
Study Activity
Respondents
Data & Results
Edit Study
Help & Resources
Edit Study Basics
Edit Study Details
Edit Study Modules
Manage Study Staff
Delete Study
Edit Study Modules
Check modules to enable/disable them in your study.
X
Location
The Location Module asks the Respondent where they ate each meal or snack. The choices are:
• Home
• Fast food Restaurant
• Other Restaurant
See more...
This property can be changed later
Ate With Others
The Ate With Module asks the Respondent if anyone was present at each meal and snack, and if so, was it a family member or someone else.
This property can be changed later
Source
The Source Module asks a question about the source of each food and drink consumed. The choices are:
• Supermarket or grocery store
• Convenience store
• Other store (any type)
See more...
This property can be changed later

Troubleshooting

- **Check Researcher Instructions or Researcher Website**
  https://epi.grants.cancer.gov/asa24/researcher/instructions.html
- **Visit NCI Website** (http://epi.grants.cancer.gov/asa24/), **including:**
  - Frequently Asked Questions
    https://epi.grants.cancer.gov/asa24/resources/faq.html
  - Known Issues & Workarounds
    https://epi.grants.cancer.gov/asa24/resources/issues.html

Getting Help

- **Contact the ASA24 Helpdesk:**
  - Report a bug: https://epi.grants.cancer.gov/asa24/support/report.html
  - Request help: https://epi.grants.cancer.gov/asa24/support/contact.html
  - Send an email to: ASA24Helpdesk@westat.com
- **Send message to ASA24 Listserv**
  - Subscribe at https://list.nih.gov/cgi-bin/wa.exe?A0=ASA24-L)

Common questions

Why isn’t ASA24 available in more languages?

- ASA24 is available in English and Spanish in the U.S. version
- Available in English and French in the Canadian version
- ASA24 could be translated to other languages
  - Requires some additional funding
  - If interested in translation or other adaptations contact ASA24 Helpdesk or Kirsten Herrick

How can ASA24 best be adapted to ask mothers to recall the feeding of infants (birth to 12 months)?

- ASA24 can be used to collect:
  - Time and quantity of expressed breastmilk, formula, and complementary foods
  - Time of direct breast feeding (nutrient content and volume of breastmilk is problematic)
- Potential challenges with ASA24
  - Very small portion sizes
  - Pureed table foods
- **Advice**
  - Pilot test ASA24 with your population
  - Consider using questionnaires to supplement data collection

Currently, we do not have any plans to develop a version of ASA24 to meet the unique needs to this population.

How are dietary supplements handled?

- Supplements are entered in ASA24 just like foods. Respondents are asked to report amount in doses.
- Respondents can search for them and add them to any meal.
- Respondents can also enter a meal that is called “just a supplement”.

How is composition updated?

- Supplement data in ASA24-2020 is from NHANES Dietary Supplement Database 2015-16.
- Each version of ASA24 uses the most up to date version of the NHANES Dietary Supplement Database.

When will ASA24 be compatible with NDSR?

- ASA24 is based on federally funded and maintained databases that are free for use
- NDSR is based on a proprietary databases that charge a fee for use
- The analytic files that ASA24 generate, provide nutrient values at the food level
  - This would result in the release of NDSR proprietary information
- Another dietary assessment tool – Diet History Questionnaire (DHQ) includes NDSR nutrient values

How many study participants can access ASA24 simultaneously?

- ASA24 can support 300 simultaneous users
- Migration to the cloud should increase this number
- If you have a large study and anticipate heavy traffic, we advise staggering the days you have respondents using the system

Is there any way to calculate individual Healthy Eating Index (HEI) score with ASA24?

- YES!
- Person level
  - Across multiple days
  - Each day
- Group level
  - One day on everyone: Population ratio method
  - Multiple days on everyone: Markov Chain Monte Carlo method (MCMC)
  - Best to have a statistician on board
- https://epi.grants.cancer.gov/asa24/resources/hei.html

Can ASA24 be adapted for other countries or ethnic groups?

- Yes! Canadian and Australian versions already exist
- Adaptations have access to ASA24 infrastructure and updates
- System is designed to make adaptations possible
  - Translation alone – easiest modification
- Other modifications involving modification of probes, foods, supplements, nutrient and food group databases – more complex
  - Require significant additional funding
  - In-kind funding

Questions?

www.cancer.gov

www.cancer.gov/espanol