Instructions for the ASA24® Researcher Website:

2016 and 2014 Versions

Updated January 2017

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1. About the ASA24 System

The Automated Self-Administered 24-hour (ASA24) Dietary Assessment Tool was developed by the National Cancer Institute (NCI) to enable multiple, automatically coded self-administered 24-hour recalls. The ASA24 system can be used by researchers for epidemiologic, interventional, behavioral or clinical research. Clinicians can utilize this tool to collect 24-hour recalls or food records from patients and receive complete nutrient analysis of the foods consumed during the collection timeframe. Educators may find it useful to have nutrition students analyze intake or compare diet assessment methods using ASA24.

The most recent version of the ASA24 system, ASA24-2016, ASA24-Canada-2016, and ASA24-Australia-2016 can also be used as a food record, also called a food diary. Food records are useful for real-time data collection and for promoting dietary change.

Researchers should determine whether using recalls or food records best suits their research needs, as well as how, when and how many recalls or food records should be administered to produce optimal data. More information about choosing an assessment method can be found in the National Cancer Institute’s (NCI) Dietary Assessment Primer.

The ASA24 system consists of a Respondent website, used to collect data from participants, and a Researcher Website, used to manage study logistics and access nutrient and food group data files.

The ASA24 Respondent Website guides the participant through the completion of either a 24-hour recall for the previous day (from midnight-to-midnight or for the past 24-hours) or for a single or multiple day food record. The ASA24 instrument:

- Flows as per modified United States Department of Agriculture (USDA) Automated Multiple-Pass Method (AMPM) for 24-hour recalls, which was further adapted for collection of food records;
- Allows researchers to specify timing of recall, either from midnight-to-midnight or for the past 24-hours from time of login;
- Asks Respondents to report eating occasion and time of consumption;
- Requires Respondents to search to find foods, drinks and supplements;
- Asks detailed questions about food form, preparation, portion size, and additions so that food codes can be assigned;
- Uses images to assist Respondents in reporting portion size;
- Allows the Respondent to add or modify food, drink, and supplement choices at multiple points during the recall or record;
- Includes optional modules to query where meals were eaten, whether meals were eaten alone or with others, television and computer use during meals, and source of foods consumed;
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- Includes an optional module to query dietary supplement intake;
- Is available in English and Spanish for U.S. versions; ASA24-Canada-2016 is available in English and French; and ASA24-Australia-2016 and ASA24-Canada-2014 are available in English only;
- Is accessible by individuals using assistive technologies, such as screen readers.
- NEW in the 2016 version is an optional Respondent Nutrition Report that Researchers can choose to make available to Respondents. The Respondent Nutrition Report will provide feedback on nutrient and food group intake in comparison with U.S. dietary guidance. This report is available only for Respondents completing food recalls using the U.S. version of ASA24-2016. This feature is under development for food records.

The versions of the ASA24 Respondent Website corresponding to these instructions are:

- ASA24-2016 (released March 2016);
- ASA24-Canada-2016 (released October 2016);
- ASA24-Australia-2016 (released December 2016);
- ASA24-2014 (released February 2014; no longer available for registering new studies);
- ASA24-Kids-2014 (released February 2014; no longer available for registering new studies by March 2017);
- ASA24-Canada-2014 (released April 2014; no longer available for registering new studies).

Information about the current and previous versions of the ASA24 Respondent Websites, the Respondent Website Methodology, and ASA24 System Requirements is available on the National Cancer Institute’s ASA24 Website.

The remainder of this document provides detailed instructions on the use of the ASA24 Researcher Website, which allows Researchers to register a study and its Respondents, set study parameters (e.g., number of recalls, number of attempts per recall, time allowed for Respondents to complete a recall, number of days in a record), manage study logistics, and obtain analytic files. Instructions for the previous version of the Researcher Website are available.
2. Key Considerations for Researchers

Note: Definitions for ASAS24-specific terms and abbreviations can be found in the Key Terms section at the end of this document; in the following section, the first occurrence of each key term is linked to its definition in the Key Terms section.

How much does it cost to use the ASA24 system?

As part of its mission to advance measures and methods for monitoring cancer-related behaviors and other risk factors, the National Cancer Institute's (NCI) Risk Factor Assessment Branch provides tools and resources to the extramural research community. Consistent with that, the ASA24 system is available for use free of charge to researchers, clinicians, and teachers.

Costs to consider when planning a study that uses ASA24 include system and labor costs associated with uploading study details, including Respondent usernames and recall dates. Costs also are associated with contacting and monitoring Respondents, assessing data quality, and analyzing data. The labor and resources needed by researchers and associated costs to configure and manage studies using the ASA24 system are within the purview and the responsibility of users.

How can a Researcher gain access to the ASA24 system?

A researcher, clinician, or teacher who wishes to use the ASA24 system must create a Researcher account before setting up a new study. To create a new user account, Researchers must provide basic information: name, organization, phone number, and email address. All Researchers must read and accept the ASA24 Researcher Agreement before creating an account. Upon accepting the Agreement and completing the account creation form, the Researcher will receive an email with a temporary password. The first time Researchers log into the website they are required to change their password. Once a new password has been chosen, a new study may be registered.

What documentation is available for Researchers interested in using the ASA24 system?

General information about the ASA24 system is available on the National Cancer Institute’s (NCI) ASA24 Website. This Website includes helpful resources, such as Frequently Asked Questions (FAQs), documents that can be used for funding and ethics proposals, help documents to provide to study respondents, a list of known issues and workarounds, and links to relevant publications.

In addition to this Researcher Website instruction document, sample Analytic Files and Data Dictionaries that enable Researchers to view the nature of the output provided by the ASA24 are available for download from the NCI Website and the Researcher Website. The Data
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Dictionaries are included in Appendices C-J of this document. A Listserv that allows current and potential users to communicate with other ASA24 users is also available.

How can a Researcher test or pilot the ASA24 system?

A demonstration version allows any interested user to complete a recall using the Respondent Websites. The demonstration versions can be completed in English or Spanish for ASA24-2016, ASA24-2014 and ASA24-Kids-2014. There are no demonstration versions for ASA24-Canada or ASA24-Australia. Please note that the demonstration version does not provide analysis file output.

Access to the full ASA24 system requires creating a Researcher user account and registering a study. Once a study is set up and Respondent Accounts are created, login information for a demonstration account (Demo_User) for that study’s Respondent Website will be available in the first Username and Password file obtained after you register a study. Researchers can use the Demo_User Account to familiarize themselves with the respondent experience and to verify customizations made to the Respondent Website (e.g., study logo, welcome screen text, selection of optional modules) during study setup (see Setting Up a Study). Data entered using the Demo_User Account will not be saved and will not appear in output files available from the Researcher Website.

To extensively test the ASA24 system, including saved data and output files, Researchers can set up test user accounts by specifying StudyIDs for testing purposes. It is important to ensure that these test StudyIDs can be distinguished from valid Respondent IDs in the output files so that they can be deleted prior to study analyses. Therefore, for testing purposes, it is advisable to use a distinct range of StudyIDs for test user accounts so that they can be distinguished from the StudyIDs of study Respondents. Please conduct such testing within the context of an existing study, rather than setting up a separate study whenever possible. Please see Setting Up a Study for further information on creating Respondent Accounts in the ASA24 system.

Can the ASA24 system be used with individuals of all ages?

The ASA24 system was initially developed for use with adults. ASA24-Kids-2014 was modified for use with U.S. children ages 10 years and older, but will no longer be available for new studies after March 2017. To make the software user-friendly and appealing for this age group, this version included a shorter list of foods and beverages from which to choose; this list was based on National Health and Nutrition Examination Survey (NHANES) recall data for children. It asked fewer detailed questions about food preparation, which led to more default coding of foods using the Food and Nutrient Database for Dietary Surveys (FNDDS) version 4.1.

Funding is not currently available for a mobile accessible version for kids, such as ASA24-2016. Researchers using ASA24-Kids-2014 and ASA24-Kids-2012 will need to transition to ASA24-2016.
by March 2017 if data collection for a study will continue beyond this date. More information can be found on the ASA24-Kids Respondent Website.

**What sample size can be accommodated by the ASA24 system?**

The ASA24 system was designed to manage multiple, large epidemiologic studies simultaneously. Should a Researcher wish to use the ASA24 system for a very large study (i.e., thousands of Respondents), it is advisable to arrange the timing of recalls and records so that not all Respondents are attempting to access the system on the same days.

The Researcher Website is not currently optimized to manage a large number of Respondents (more than 10,000) within a single study. Please contact the ASA24 Help Desk if you have a need for a high volume of concurrent users to discuss management strategies.

**How will study Respondents be notified about visiting the ASA24 Respondent Website to complete their recalls?**

It is the responsibility of the Researcher to contact Respondents to provide the URL for the ASA24 Respondent Website, usernames and passwords to access the site, and details about dates to complete their recalls or records. NCI has no access to any contact or identifying information for study Respondents.

Usernames for study Respondents will be generated by the ASA24 system based on the study abbreviation specified by the Researcher during study creation. Passwords can either be provided by Researchers or generated by the ASA24 system. Respondents’ usernames and passwords will be available for download from the Researcher Website once Respondent Accounts have been created.

**Who will need access to the ASA24 Researcher Website to manage a study?**

Any study staff who will be involved in managing study logistics, overseeing Respondent progress, and requesting reports and analytic files will need a username and password to access the Researcher Website. Researchers can add or remove study staff at any time by logging into the Researcher Website, selecting a study and choosing the Edit Study Details tab. To edit staff, look for the blue button “Manage Study Staff.” Once staff are added to the staff via this method, usernames and passwords will automatically be e-mailed to staff who were added.

**Will my study involve Scheduled or Unscheduled recalls?**

For 24-hour recalls only, when setting up a study, Researchers can select either Scheduled or Unscheduled (or ad hoc) administration. Researchers will need to decide whether to use Scheduled or Unscheduled recalls before creating Respondent Accounts and before any Respondents can begin completing recalls.
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*It is important to note that, once Respondent Accounts have been created, a study cannot be changed from Unscheduled to Scheduled or from Scheduled to Unscheduled. To do this, you must delete existing Respondent Accounts, update the Study Type setting, and then create new Respondent Accounts.*

In a study with Scheduled recalls, the Intake Dates are designated during the initial study setup using either the Respondent Accounts Wizard or the Import File (see Create Respondent Accounts). The ASA24 Respondent Website will permit Respondent access only on the specified Reporting Dates. Dates can be specified for multiple attempts for each recall in case the Respondent does not complete the recall on the first assigned date. In some cases, Unscheduled recalls may be preferred due to the unpredictable nature of clinic visits or classes. In a study with Unscheduled recalls, Respondent access to ASA24 is not limited so long as the Respondent has not reached the maximum number of recalls specified by the Researcher or the study end date.

**Will my study involve Consecutive or Nonconsecutive records?**

For food records only, days of data collection can be either Consecutive or Nonconsecutive. Researchers need to decide this before any Respondents begin completing records.

In a study with Consecutive records, researchers will be asked to specify the Number of Consecutive Days, which is the maximum number of consecutive days that Respondents will report for each Record. If collecting multiple consecutive day Records, the number of consecutive days for each record must be the same.

The system will prevent record completion when Respondents attempt to complete a record outside the study dates or for a number or days beyond that designated by the Researcher (i.e., for a study collecting 3-day records, the Respondent would not be allowed to report for an additional day).

**How many intake days can be reported by each Respondent?**

Each unique username can be used to complete only the number of recalls or record days specified by the Researcher. Recalls and records that are started, but not finished, count towards this maximum. The maximum number of recalls or record days specified for a study can be edited in Study Details on the Researcher Website after a study has been created.

**How will the ASA24 system help me monitor my study’s progress?**

During a study, the Researcher can visit the Researcher Website to view and download data on Respondents’ progress, including the date of the next Scheduled recall for a Respondent (for Scheduled studies), the number of completed recalls or records per Respondent, and other progress metrics.
Filter options for Tracking Recalls and Records include, among others:

- Recalls scheduled during a specific date range;
- Recalls or Record days not started; and
- Recalls or Record days with both food and supplement information completed.

What analytic output will I be able to access using the ASA24 system?

For the 2016 and 2014 versions of the ASA24 system, Researchers can access the Researcher Website at any time once a study has begun to obtain analytic output files, including nutrient and food group analyses. Files include a summary of Respondents’ quick list entries, food codes, energy, nutrients/dietary constituents, MyPyramid Equivalent/Food Pyramid Equivalents, supplement codes, and nutrients from supplements. Refer to the Data Analysis section for detailed information about the analytic output available from the ASA24 system.

Analyses can be run for all Respondents (batch) or for the last recall or record of a particular Respondent (individual). Output for batch requests is cumulative and will be available the following day by 6:00 a.m. Eastern Time and output for individual requests will be available in approximately 15 minutes.

If Researchers have selected the Respondent Nutrition Report option (currently available for the U.S. ASA24-2016 version, recalls only), feedback regarding food group and nutrient intakes in relation to dietary guidance is provided by the ASA24 system to Respondents and Researchers. Respondent Nutrition Reports are downloadable in .pdf form and formatted for the lay public. They will be available immediately after Respondents complete their recalls. Respondent Nutrition Reports for food records are under development. More information is available on Respondent Nutrition Reports.

Is the ASA24 system available in multiple languages?

The U.S. version of the ASA24 system is available to Respondents in both English and Spanish for ASA24-2016, ASA24-2014, and ASA24-Kids-2014. It is available in English only for ASA24-Canada-2014, and in English and French for ASA24-Canada-2016. It is available in English only for ASA24-Australia-2016. When Respondents log in to the site, they can choose their preferred language from available options. Regardless of which language is used to complete the recall, all data on the Researcher Website will be in English.

How is Respondent confidentiality maintained within the ASA24 system?

Researchers do not provide NCI or the ASA24 system with any identifying data for study Respondents. Rather, Researchers specify a user ID for each Respondent and download system-generated usernames and encrypted passwords that Respondents use to access the application.
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The ASA24 system also does not collect any identifying data directly from Respondents. IP address information is accessed for the purpose of routing information between the server and the Respondent’s computer. Often, the IP address is that of the user’s Internet Service Provider (ISP). IP addresses are not stored or tracked by the ASA24 system. However, logs of connections are kept for audit trail purposes. This information is not harvested in any way but would be available if there were a legal obligation to release it.

Respondent data are protected by industry standard security controls. All data entered into the ASA24 system are encrypted by the Internet browser (e.g., Internet Explorer, Firefox) while transmitted to the ASA24 servers using Secure Socket Layer protocol, or SSL. SSL allows for the authentication of the sending and receiving computers. Only a particular study’s investigator(s) and the ASA24 operations team can access response data using usernames and strong passwords.

3. System Requirements

The ASA24 Researcher Website was designed to optimally display on a monitor size greater than 10 inches. Additionally, a screen resolution of 1024 x 768 or larger is recommended for optimal display of the data grids.

Because data entered on one screen may affect the display of data on another screen, the ASA24 system does not support the use of the Back or Forward buttons of your web browser. Please use the tabs within the site for navigation (see Overview of the ASA24 Researcher Website for a summary of each tab).

The Respondent Websites for the 2016 versions of ASA24 were designed to display on all size screens, including mobile devices such as smartphones. A recent version of a web browser capable of displaying HTML5 is required.

Versions of the ASA24 Respondent Website prior to 2016 were designed to optimally display on a monitor size greater than 10 inches. Additionally, for versions of the ASA24 Respondent Website prior to 2016, a screen resolution of 1024 x 768 or larger is recommended for optimal display of the data grids and the Microsoft Silverlight plug-in is required. Browsers supporting Silverlight can be found at: https://www.microsoft.com/getsilverlight/.
4. Registering to Use the ASA24 System

Registering to use the ASA24 system is free to researchers, clinicians, and educators. To register, select the Register button on the Researcher Website. This button will take you to a short form that will prompt you for some basic information required to create an account (Figure 4-1). Fill in each of the required fields (noted by an asterisk), and select Submit.

After selecting the Submit button, you will receive two emails from ASA24Helpdesk@westat.com. One email will contain a username and a temporary password; the second email will contain usage information. Once you log in with the temporary password, you will be prompted to change the password to one of your choosing. You may then register a new study or explore the site.

Interested users may view the Respondent Website without registering a study. A demonstration version of the Respondent Website provides access to view and try out ASA24-2016. However, the demonstration versions will not save any intake data or provide any dietary analyses. The full version of the ASA24 system, including access to the Researcher Website, is available only to registered users.

Figure 4-1. Registering to Use the ASA24 System
5. Overview of the ASA24 Researcher Website

Once a Researcher Account has been created, Researchers can set up a study or simply view the site. Researchers can explore the site and manage studies through the five main tabs at the top of the page:

- My Studies
- Study Details
- Respondent Accounts
- Track Recall/Record
- Analytic Files

The My Studies tab (Figure 5-1) functions as the site’s home when a Researcher is logged in. This tab provides a snapshot of all current and past studies registered through a Researcher’s username. Researchers can view study start and end dates, the number of recalls or records collected, the date of the last recall or record collected, the total number of Respondents, and a study’s status (active or complete). Researchers can change the default study (i.e., the study that is automatically selected when a Researcher logs in) or delete existing studies. Deleting a study removes all data associated with that study, including completed recalls or records and those in progress.

Figure 5-1. My Studies Tab
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The **Study Details** tab (Figure 5-2) allows a Researcher to edit settings for current studies. These settings include the study name, description, number of respondents, number of recalls or records to be completed per respondent, study start and end dates, and other details. Study settings can be updated at any time, with the exception of Study Type (Scheduled or Unscheduled for recalls; Consecutive or Nonconsecutive for records); Study Abbreviation and version of ASA24.

**Figure 5-2. Edit Study Details**
The Respondent Accounts tab allows a Researcher to create Respondent Accounts for any study (Figure 5-3). Respondent Accounts can be created in two ways: (1) a manual file upload or (2) a step-by-step “wizard,” available for recall studies only. Before creating Respondent Accounts, it is important to consider several factors, such as Study Type (Scheduled or Unscheduled for recalls; Consecutive or Nonconsecutive for records) and the number of recalls or records allowed per Respondent. For more information on these settings or creating Respondent Accounts, see Setting Up a Study.

Figure 5-3. Respondent Accounts
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The Track Recalls/Records tab (Figure 5-4) can be used by Researchers to monitor completion of recalls or records for a selected study. On this tab, recalls or records may be filtered on a number of parameters selected by the Researcher, including date completed and completion status. Researchers may switch the table view to a Respondent-level (number of completed recalls or records for each Respondent, etc.) or recall/record-level summary (specific information for each recall or record by each Respondent, such as Reporting Date, Completion Status, etc.).

If Researchers have selected the Respondent Nutrition Report option (currently available for U.S 2016 version, recalls only), feedback regarding food group and nutrient intakes in relation to dietary guidance is provided by the ASA24 system to Respondents and Researchers. A Respondent Nutrition Report provided to a Respondent can be obtained by a Researcher selecting the view link in the Nutrition Report column. Respondent Nutrition Reports for food records are under development. More information on Respondent Nutrition Reports is available.

Figure 5-4. Track Recalls/Records Tab
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The **Analytic Files** tab (Figure 5-5) allows Researchers to request and download analytic files for a selected study. For ASA24-2016 and ASA24-Canada-2016, these files include nutrients and the Food Pattern Equivalents data. For ASA24-Australia-2016, files include nutrients only. For ASA24-2014 and ASA24-Kids-2014 the files include nutrients and MyPyramid Equivalents data. For ASA24-Canada-2014, files include nutrients only. For all versions, files can be generated for all Respondents (batch) or for the last recall or record for a single Respondent (instant). Batch files for all Respondents will be available the following morning by 6 a.m. Eastern Time; files for a single Respondent will be available for download in approximately 15 minutes.

**Figure 5-5. Analytic Files Tab**

![Image of Analytic Files Tab]

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**Report Status Codes**
- **Submit**: Request has been submitted but no files are ready to download
- **Complete**: All report files are created and ready to download
- **Partial Complete**: Part of the report processing failed, only some of the reports are available
- **Quit**: There was a problem and the report request could not be completed
- **Failed**: There was a problem and the report request couldn't be completed
6. Setting Up a Study

Before creating a study, Researchers should consider several parameters that will affect the completion of recalls or records by Respondents and the study’s overall administration. These parameters include study start and end dates, number of respondents, number of recalls or records per respondent, and the number of days desired for consecutive day food records.

To create a study, visit My Studies tab and select the Create a New Study button. This button will take you to a detailed form (Figure 6-1) where you can specify the study parameters. Once you complete the form, you can create Respondent Accounts and manage study staff access. These steps are detailed below.

Figure 6-1. Create a New Study
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Study Parameters

An explanation of each study parameter follows. Note: You can view key information about each parameter as you are entering information on the Researcher website by selecting the question mark next to each item.

Study Abbreviation: Researchers must provide a Study Abbreviation when registering a new study. It must be unique within the ASA24 system and composed of three to six letters or numbers with no spaces. The username for each Respondent in a study will be a combination of the Study Abbreviation and a numeric Study ID provided during Respondent Account creation. For example, if a study’s abbreviation is FRUIT, sample usernames may be FRUIT101 or FRUIT1001. For this reason, it is a good idea to choose an abbreviation that will be meaningful to your Respondents.

Study Description: Researchers must provide a brief description of the study; this field has a 200-word limit. This description will only be viewed by the Researcher, their study staff, and the ASA24 Help Desk (ASA24Helpdesk@westat.com) staff; it will not be displayed on the Researcher or Respondent Websites.

Example:

This is a cohort study with 100,000 Respondents investigating diet and risk for later chronic diseases, including cardiovascular disease, diabetes, and a variety of cancers. The baseline data will be collected over the next five years and the follow-up will be conducted subsequently.

Number of Respondents: Researchers must specify the anticipated number of Respondents for a study. This information can be updated as needed after a study has begun.

Tool: Researchers must specify whether they would like to use the ASA24 system as a 24-hour recall or food record for their study. The option to use the ASA24 system as a food record is available only for the 2016 versions of the ASA24 system. The tool selected will determine which parameters follow, described below. For more information about how to select a tool for your study see the Dietary Assessment Primer.

For studies using ASA24 as a Recall:

Study Type: There are two study types for recalls —Scheduled and Unscheduled. In a study with Scheduled recalls, the Intake Dates are specified by the Researcher, and the ASA24 Respondent Web site will permit Respondent access only on the specified Reporting Dates.

In a study with Unscheduled recalls, Respondents can access the ASA24 system on any day until the maximum number of recalls (as determined by the Researcher) is reached.
Unscheduled recalls may be preferred in clinical or classroom settings due to the unpredictable nature of the visits/classes or in a study in which the Researchers prefer more internal controls related to scheduling recalls for Respondents. *Please note that study type cannot be changed once Respondent Accounts have been created.*

**Number of Recalls (per Respondent):** Researchers must specify the maximum number of recalls allowed for each Respondent. The ASA24 system does not impose any limit on the number of recalls Researchers may request to be completed per Respondent. This parameter can be changed after a study has begun.

**Intake Time Frame:** Researchers must specify the Intake Time Frame for the recalls to be collected within a study. ASA24 studies can be set up so that Respondents are prompted to report their intake in two ways: (1) from Midnight to Midnight the previous day (i.e., the day before the Reporting Date), or (2) for the Last 24 Hours (i.e., the 24 hours preceding the Respondent’s first log in time to the ASA24 system). For the Last 24 Hours option, recalls must be completed by midnight on the Reporting Date; for Midnight to Midnight studies, Researchers can choose whether Respondents must complete their recalls by midnight on the Reporting Date or by 8 a.m. the following day using the “Finish reporting in” parameter, described below.

**Complete Reporting In:** Researchers must indicate whether Respondents can complete their recalls either in one session (i.e., one login with no breaks greater than 30 minutes to avoid the automatic timeout) or in multiple sessions. The number of sessions a Respondent used for each recall will be displayed on the Track Recall/Record tab. This parameter can be changed after a study has begun.

**Finish Reporting In:** This field refers to the time frame (either 24 or 32 hours) that the Researcher will permit Respondents to finish each recall. This information can be updated after a study has begun, but is dependent on the selection made for Intake Time frame:

If the Intake Time frame is Midnight to Midnight, Researchers must choose between allowing Respondents 24 or 32 hours to complete their recalls; for 32 hours, the Respondent will have until 8:00 a.m. the day after the Reporting Date to complete the recall. These rules apply to both Scheduled and Unscheduled Studies.

If the Intake Time frame is Last 24 Hours, Respondents must complete their recalls by midnight on the day the recall is started (the Reporting Date).
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The ASA24 system uses the Respondent’s computer local date and time to verify that the Respondent is completing a recall within the allowable time frame, as specified by the Researcher. Visiting the site at any other time will result in the following message: “Permitted recall not scheduled.”

Consecutive recalls are possible under specific conditions determined during study setup. See Key Terms for details on allowing consecutive recalls.

Study Start and End Dates: Researchers must select Study Start and End Dates. The Study Start Date is the first date that study Respondents may log in to the Respondent Website to complete a recall. The Study End Date is the last date that study Respondents may log in to complete a recall.

For studies using ASA24 as a Record (2016 versions only):

Number of Records (per Respondent): Researchers must specify the maximum number of records allowed for each Respondent. The ASA24 system does not impose any limit on the number of records completed per Respondent. This parameter can be changed after a study has begun.

Study Type: Researchers must specify whether they want records to include Consecutive or Nonconsecutive days. Select Consecutive if Respondents are to report for two or more consecutive days. A Consecutive Record will begin on the first day a Respondent logs in. Select Nonconsecutive if Respondents are to report any number of Nonconsecutive, single-day Records. For either study type, Respondents can log in to edit the Record one day beyond the Record's last day. Please note that study type cannot be changed once Respondent Accounts have been created.

If Researchers choose a Consecutive record study type, they will then need to also specify the maximum Number of Consecutive Days that Respondents will report for a Record. If collecting multiple consecutive day Records, the number of consecutive days for each record must be the same. For example, a Researcher wishing to collect a three-day record would enter “3” as the maximum number of consecutive days. If they wanted to collect a second record within the same study, it must also be a three-day food record.

Study Start and End Dates: Researchers must select Study Start and End Dates. The Study Start Date is the first date that study Respondents may log in to the Respondent Website in order to complete a record. The Study End Date is the last date that study
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Respondents may log in to the Respondent Website in order to complete a record. The Start Date and End Date can be updated later if needed.

After completing the study parameters, Researchers are asked to specify their Researcher affiliation(s) and the Purpose of the study. This information is collected for internal use only and does not affect study administration.

**Modules:** This field is used to indicate which optional ASA24 modules will be administered to Respondents (Figure 6-2). The Location module is selected by default because location may provide context to aid Respondents in recalling what they ate at a meal; however, this module can be turned off by the Researcher. Other optional modules query about with whom meals were eaten, food source, TV/computer use during meals, and supplement intakes. Note that if the food source module is selected, the location module must also be selected and that a question regarding source is asked for each food reported; this will increase the amount of time it takes to complete a recall or record. For ASA24-2016 (U.S. version and for recalls only), you can select whether or not you want Respondents to be able to obtain a Respondent Nutrition Report indicating how their intake for the day compares to dietary guidance. Module selections can be updated after a study has begun. See Appendix K for more information on modules.

Figure 6-2. Modules

![Modules](image)

**Add study staff**

Researchers may provide study access to additional staff for administration of the study. Staff members who are added to the study will be able to log into the Researcher Website to complete study setup tasks, monitor study progress, and request and download analytic output files. The Researcher who created the study is assigned as the primary investigator by default. Only the primary investigator can delete a study (and corresponding data); other study staff can perform all other actions within the ASA24 Researcher site.

New study staff can be added by visiting the Study Details tab and selecting the Manage Study Staff button. This link will take you to a tab where you can create accounts for new staff or manage access for staff members who already have ASA24 accounts. To switch between studies, select the relevant study from the drop-down menu at the top of the tab. Once the
appropriate study has been selected, select Add Study Staff and complete the form with basic contact information for the staff member; the staff member will then receive information about logging into the site via email.

Create Respondent Accounts

Respondent Accounts can be created in two ways: using the Respondent Accounts Wizard (for Recalls only) or using an Import File.

Respondent Accounts Wizard (for Recall studies only)

The Respondent Accounts Wizard will walk you through the necessary steps for creating Respondent Accounts. It may be helpful to consider the parameters described below before launching the Wizard. The Wizard is only available for studies using ASA24 as a recall.

Once you are ready to start the Wizard, go to the Respondent Accounts tab. On the first screen, check that the correct study is selected. Then select the Start Wizard button and follow the prompts in each step.
Figure 6-3. Outline of the Steps in the Respondent Account Wizard

Description of each step follows.

**Step 1:** Determine starting ID

**Step 2:** Determine number of respondents

**Step 3:** Determine number of recalls/respondents

Yes

**Scheduled Study?**

No

**Step 4:** Specify distribution weekday vs. weekend

Yes

**Random distribution?**

No

**Step 4a:** Specify number of weekend recalls

**Step 5:** Specify days between recalls

Yes

More than one recall?

No

**Step 6:** Define parameters for attempts

**Step 7:** Will recalls be administered in stages?

**Step 8:** Choose password
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**Step 1:** Determine a starting ID number (Figure 6-4). This number will represent the first Respondent Account number in the series. If your study abbreviation is FRUIT, and you select a starting respondent number of 100, the first Respondent username will be FRUIT100. Subsequent usernames will be FRUIT101, FRUIT102, etc.

If you wish to use a distinct range of usernames for testing purposes only (e.g., in the 500-550 range), you will have to complete the Wizard twice, entering different starting ID numbers for test usernames as well as active Respondent usernames. Refer to How can a Researcher test or pilot the ASA24 system? in the Key Considerations for Researchers for more information.

**Figure 6-4. Step 1: Determine a starting ID number**

**Step 2:** Determine the number of Respondents who will participate in the study (Error! Not a valid bookmark self-reference.). The Wizard can be used to create Accounts for additional Respondents later if necessary.

**Figure 6-5. Step 2: Determine number of Respondents**
Step 3: Determine the number of recalls allowed per Respondent (Figure 6-6). If the number of recalls is 5, once a Respondent has completed 5 recalls, they will not be able complete any further recalls. This number can be updated later if needed.

Figure 6-6. Step 3: Determine number of recalls

Note: Steps 4 through 7 apply only to Scheduled studies. For Unscheduled studies, skip to Step 8.

Step 4: Determine the number of recalls to be collected for weekday intake dates (Monday through Thursday) versus weekend intake dates (Friday, Saturday, Sunday) for each Respondent (Error! Not a valid bookmark self-reference.). Recalls may be randomly distributed throughout the week or the number to be completed for weekend Intake Dates (Friday, Saturday, and Sunday) may be specified (in this case, the remaining recalls will be scheduled for weekday intake dates).

Figure 6-7. Step 4: Recall Distribution
**Step 4a:** The number of weekend recalls may be zero for studies in which Respondents will complete all recalls for weekday intake dates; similarly, the number of recalls for weekend intake dates may be the total number of recalls per Respondent, which would allow for recalls only for weekend intake dates and no weekday intake dates (Figure 6-8).

**Figure 6-8. Step 4a: Number of recalls per respondent on weekend days**

![Image]( ASA24 Researcher Instructions)

**Step 5:** Determine the number of days between recalls (Error! Not a valid bookmark self-reference.). For Midnight to Midnight recalls where consecutive days are desired, respondents must finish reporting in 24 hours, the number of days between recalls must be zero, and the number of attempts must be one. For Midnight to Midnight recalls where Respondents must finish reporting in 32 hours, consecutive recalls are not possible and the number of days between recalls must therefore be larger than zero.

To space recalls evenly, specify the necessary interval between recalls. For example, if you would like each Respondent to complete 3 recalls over a 3-month study timeframe and recalls to be spaced evenly throughout the study period, enter 30 days between recalls.
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Figure 6-9. Step 5: Days between recalls

<table>
<thead>
<tr>
<th>Respondent Account Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 5: Number of days between recalls</td>
</tr>
<tr>
<td>Specify the number of days between recalls. For example, for monthly recalls, enter 30.</td>
</tr>
<tr>
<td><em>Number of days between recalls</em></td>
</tr>
</tbody>
</table>

Step 6: Determine the number of attempts each respondent is allowed for each recall and the number of days between each attempt (Error! Not a valid bookmark self-reference.). Specify one attempt to limit Respondents to a single date to complete each recall or the desired number of multiple attempts. To schedule attempts for consecutive days, specify one day between attempts.

Figure 6-10. Step 6: Attempts

<table>
<thead>
<tr>
<th>Respondent Account Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 6: Attempts</td>
</tr>
<tr>
<td>Because Respondents may not complete recalls on their initial scheduled dates, it may be helpful to allow multiple chances or “attempts” to complete each recall. Below, specify the number of attempts to allow for each recall. The number of attempts must be reasonable considering the number of days between recalls (specified in the previous step). Next, specify the number of days between attempts.</td>
</tr>
<tr>
<td><em>Number of attempts each Respondent is allowed for each recall</em></td>
</tr>
<tr>
<td><em>Number of days between each attempt</em></td>
</tr>
</tbody>
</table>

Note: If you specified recalls on weekend days, the first attempts for these recalls will be scheduled on weekend days. However, subsequent attempts may not fall on weekend days, depending on the other settings specified (e.g., days between recalls and attempts). Review the file created in the final step to ensure that the schedule generated in the final step meets the needs of the study.
Step 7: Determine whether recalls will be administered in stages. (Error! Not a valid bookmark self-reference.). In a large study having all Respondents start their recalls at the same time may be difficult for study staff to manage and support Respondents. Therefore, it may be advantageous to Researchers to stage recalls over a period of weeks or months so that a manageable number of Respondents is completing recalls at a given time. Any number of stages can be created, as long as each stage falls within the study period.

Figure 6-11. Step 7: Staged Starts

Once you have completed the steps outlined above, a summary of your selections will be presented on a single screen (Figure 6-12). It is important to review this screen carefully; use the Back button provided on the screen (rather than the browser’s Back button) to make changes if necessary.
**Step 8:** Choose between randomly generated passwords (e.g. blaCKhaWk421!) for all Respondents or passwords based on a relevant root word (e.g. Pizzas10) (Figure 6-13).

Once the wizard has been completed, two files will be available for download: a Username and Password File and an Import File. The Import File contains the SubjectID, Reporting Dates, Attempt Dates, Intake Dates and Passwords. If desired, this file can be downloaded, updated, and then uploaded to make modifications to the schedule of dates (see Import File below).

**Figure 6-13. Step 8: Password creation**
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For Scheduled studies: Researchers should carefully review the schedule provided in the Import File to ensure that it is consistent with expectations. The Wizard is designed to create a recall schedule that matches all elements selected by the Researcher during completion of the Wizard, while correcting for entries that present logic conflicts (e.g., requesting more weekend recalls than total number of recalls). However, there are several parameters used to calculate the recall schedule (number of recalls per Respondent, number of attempts per recall, number of weekend Intake Dates, and spacing of recalls throughout the study period), and it is therefore important to confirm that each selection corresponds with the schedule anticipated by the Researcher.

To make changes, the Researcher can run the Respondent Accounts Wizard again with different selections. Alternatively, this file can be downloaded, updated and then uploaded to make modifications to the schedule of dates (see Import File below).

Import File

The Import File should be used to create respondents accounts for all studies using the ASA24 system as a food record. It can also be used to define accounts for recalls instead of using the Wizard.

Researchers enter the information needed for creating Respondent Accounts into the Import File template, available for download from the Researcher Website. The Import File template is an Excel workbook with multiple worksheets and is described in more detail in the next section. Once the Import File has been populated, it must be saved as a CSV file. Then, the Researcher uploads the file to the Researcher Website on the Respondent Accounts page. The content and structure of the Import File will be validated by the ASA24 system. Once validated, the ASA24 system will generate a file containing usernames and passwords for the Respondents Accounts. Researchers are responsible for assigning and securely distributing account information to their Respondents. After the initial Import File has been uploaded and validated, Researchers are allowed to upload additional files to add new Respondents or to update new Intake Dates for existing Respondents in a Scheduled study. Researchers can change the number of Respondents or the number of recalls or records per Respondent by editing the study settings using the Study Details screen. This should be done prior to attempting to upload new CSV files.

Completing and uploading the Import File

Please ensure that you carefully follow the instructions to avoid delays in completing your study setup (study Respondents will not be able to access the Respondent Website until the setup
process has been successfully completed). The Import File must be structured as described in this section.

As noted above, a template of the Import File is available for download from the Researcher Website. Please note that the template is provided as an Excel file rather than a CSV file to enable the inclusion of instructions for Researchers. Because the template is an Excel file, we refer to it as a workbook. The Excel workbook includes five worksheets as indicated by the tabs along the bottom; the first is the actual template that Researchers will use to enter Respondent data. The four remaining worksheets include sample data for a Scheduled Recall study, sample data for an Unscheduled Recall study, sample data for a food record (both Consecutive and Nonconsecutive) study, and troubleshooting tips.

You may populate the template worksheet of the spreadsheet with your data using Excel, but the ImportFile_Template worksheet must be saved as a CSV file before it can be uploaded. (Note: when saving an Excel workbook as a CSV file, only the data in the active sheet will be retained in the CSV file. Make sure the worksheet ImportFile_Template is the active sheet before saving.) The additional worksheets (i.e., sample data and troubleshooting tips) will not be retained in the CSV file, so you may wish to save a copy of the Excel version for future use and reference.

Before populating and uploading the Import File, ensure that you have selected the correct study type (Scheduled or Unscheduled for recalls, Consecutive or Nonconsecutive for records) within the Edit Study screen. The major difference in the Import File between the study types is that the Researcher must provide a schedule of Intake Dates to the ASA24 system for Scheduled recall studies, whereas this information is not accepted for Unscheduled recall studies or food record studies. Respondents in Scheduled studies can only access the ASA24 system on their specified Reporting Dates. Respondents in Unscheduled or food record studies have unlimited access to the ASA24 system so long as they do not attempt to complete more than one recall or record within the same reporting period, reach the maximum number of recalls or records (refer to Key Considerations for Researchers for further details), or go beyond the study end date. Please note that once a study has begun (i.e., Respondent Accounts have been created), the Study Type (Scheduled or Unscheduled for recalls; Consecutive or Nonconsecutive for records) cannot be changed.

The study type determines which columns in the Import File need to be populated by the Researcher. If the information that you upload in the Import File does not match the study type that you have selected, then the system will not accept your file and you will not receive usernames and passwords for your Respondents.
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- For a Scheduled study (recalls only), the Import File must include complete information for SubjectID, Recall Number, Attempt, and Intake Date.
- For an Unscheduled study (recalls only), only SubjectID is required. Leave the Recall Number, Attempt, and Intake Date columns blank. Complete only one row per Respondent, regardless of the number of recalls each Respondent is to complete.
- For Consecutive or Nonconsecutive studies (records only), only SubjectID is required. Leave the Recall Number, Attempt, and Intake Date columns blank. Complete only one row per Respondent, regardless of the number of recalls each Respondent is to complete.

The Import File columns are described below:

- **StudySubjectID**: Applies to all study types. StudySubjectIDs must be provided to allow ASA24 to generate usernames for study Respondents. Usernames will be composed of the Study Abbreviation (provided at study registration) and the StudySubjectID. Usernames are used in all ASA24 reports and files to enable the Researcher to link ASA24 data with other study data. Please note that data in ASA24 reports are sorted alphanumerically; Researchers may wish to use leading zeroes in StudySubjectIDs to enable ordinal sorting (e.g., 0001, 0002, 0003, ..., 0010, ..., 0100, etc.).
- **Recall and Attempt Numbers**: Should be filled in for Scheduled recall studies only. The Import File must include one row (and a corresponding Intake Date/Period—see below) for each recall attempt for every study Respondent. For example:
  - For a study with four recalls per Respondent and one attempt per recall, there would be four rows per StudySubjectID, in the Recall Number column each row would be numbered consecutively from 1 to 4, and in the Attempts column each row would have the number 1 (Figure 6-15).
  - For a study with two recalls per Respondent and three attempts per recall, there would be six rows per StudySubjectID with three rows per Recall Number, and in the Attempts column each row will be numbered consecutively from 1 to 3 (Figure 6-16).
Intake Date: The Researcher specifies the date(s) of food consumption to be recalled. The Reporting Date (the date on which the Respondent will access the ASA24 system to complete the recall) will be calculated by the ASA24 system. The earliest allowable intake date is the day prior to uploading of the Import File (in which case the Reporting Date would be the current date).

Password: The Researcher may choose to supply a password for each StudySubjectID or leave the Password column blank. If passwords are not supplied, they will be generated by the ASA24 system following validation of the Import File.

- System-generated passwords will have at least one upper case letter, one lower case letter, and one special character. If you plan to mail usernames and passwords to Respondents using hard copies, you may wish to specify passwords that are easier to decipher (e.g., Apples1#). If passwords are emailed to Respondents, you may want to suggest that they copy and paste the password. For security purposes, Respondent Website accounts are locked after five login attempts using an invalid password. The Researcher can unlock Respondent
Accounts under the Manage Respondent tab by selecting the Manage Respondent Accounts button.

PLEASE NOTE: A bug in some versions of Excel causes an error when an Import File without passwords is uploaded. If you experience problems, please specify passwords and try again to determine whether this resolves the issue. For additional troubleshooting information, refer to the Frequently Asked Questions on the NCI ASA24 Website.

Table 6-1. Import File Specifications

| StudySubjectID | Required for all studies  
|                | Unique identifier for each study Respondent assigned by Researcher  
|                | Numbers only; up to 24 digits*  
| Recall Number  | Required for Scheduled recall studies only; blank for Unscheduled recall and food record studies  
|                | Positive integer  
|                | Must be less than or equal to the maximum number of recalls selected in Study Details  
| Attempt        | Required for Scheduled recall studies only; blank for Unscheduled recall and food record studies  
|                | Positive integer  
| Intake Date(s) | Required for Scheduled recall studies only; blank for Unscheduled recall and food record studies  
|                | Format: mm/dd/yyyy  
|                | Must be within the study start date and end date provided by Researcher  
|                | *The earliest allowable Intake Date is the date prior to uploading of the Import File (i.e., yesterday) (see Intake Date and Reporting Date in Key Terms)*  
| Password       | For all study types, may be specified by the Researcher or left black to be generated by the ASA24 system.  
|                | 8-14 characters  
|                | At least one special character (no single or double quotes, vertical bar, comma, or backslash)  
|                | A combination of letters and numbers and/or a combination of upper and lower case letters  
|                | *Examples of valid passwords:* storage!3, #TqBfJoTID$, or 2hrd2Gs!  
|                | *Examples of invalid passwords:* funnybunny! [must include an uppercase letter and/or a number to be valid]  
|                | $3rT$ [too short]  
|                | 2easyToForget [must include a special character]  

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* Note that if you are working with Excel, a StudySubjectID that contains more than 15 digits may not show completely depending upon column width. Excel may apply automatic formatting to the password column. The file is best viewed using a text editor, such as Windows Notepad or TextEdit (or SimpleText) for Mac.

Notes regarding the format of the **Import File**:

- Column headers cannot be changed (however, headers are not case sensitive).
- No extra headers or columns are permitted.
- Blank rows for file readability are permitted.

Sample populated spreadsheets appear in Figure 6-17 and Figure 6-18 (Scheduled recall studies) and Figure 6-19 and Figure 6-20 (Unscheduled recall and food record studies).

**Figure 6-17. Sample Import File for Scheduled Study (passwords generated by the ASA24 system)**

<table>
<thead>
<tr>
<th>StudySubjectID</th>
<th>RecallNumber</th>
<th>Attempt</th>
<th>IntakeDate</th>
<th>Password</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>1</td>
<td>1</td>
<td>6/1/2016</td>
<td></td>
</tr>
<tr>
<td>1001</td>
<td>1</td>
<td>2</td>
<td>7/1/2016</td>
<td></td>
</tr>
<tr>
<td>1001</td>
<td>2</td>
<td>1</td>
<td>9/1/2016</td>
<td></td>
</tr>
<tr>
<td>1001</td>
<td>2</td>
<td>2</td>
<td>10/1/2016</td>
<td></td>
</tr>
<tr>
<td>1002</td>
<td>1</td>
<td>1</td>
<td>6/1/2016</td>
<td></td>
</tr>
<tr>
<td>1002</td>
<td>1</td>
<td>2</td>
<td>7/1/2016</td>
<td></td>
</tr>
<tr>
<td>1002</td>
<td>2</td>
<td>1</td>
<td>9/1/2016</td>
<td></td>
</tr>
<tr>
<td>1002</td>
<td>2</td>
<td>2</td>
<td>10/1/2016</td>
<td></td>
</tr>
</tbody>
</table>
Once the Import File has been populated with the required information for the study type, save the spreadsheet ImportFile_Template as a CSV file. (To do this, ensure that the ImportFile_Template is the active sheet and use the Save as command in Excel and select CSV as the file type. Only the active sheet will be converted to CSV; the additional worksheets including sample data and troubleshooting tips will not appear in the CSV file.)

Upload the CSV file to the Researcher Website (note that this can only be done once a study has been set up — see Setting Up a Study for details). To upload the completed Import File, go to the Respondent Accounts tab from the Researcher site home page. Select Browse to locate the CSV file on your computer. Once you locate the file, select the Upload the completed Import File (.csv) button; this uploads the CSV file to the ASA24 system.
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The uploaded file will be validated for errors and, if problems are detected, data on errors will be provided immediately. Errors should be fixed on the original spreadsheet, which should be uploaded again as a .csv file once corrected.

A pop-up message will provide the Researcher with a link to the Username and Password file (Figure 6-21); this file will also be available to download on the Respondent Accounts tab. Additional information, such as Reporting Date, can be downloaded from the Track Recalls/Records tab.

Figure 6-21. Pop-up Message Following Successful Import File Upload.

The last line of the first Usernames and Passwords file downloaded for a specific study includes information for a study demonstration account (Demo_User Account) that can be used to view customizations made to the Respondent Website (e.g., logo, welcome, and thank-you text), as well as to complete one or more practice 24HR or food record. 24HR and food record data entered to the Respondent Website using the Demo_User Account do not appear in the study reports or analytic files.

While Excel provides a convenient way to view CSV files, passwords with special characters may not display correctly due to automatic formatting applied by Excel. The downloaded Username and Passwords file is best viewed using a text editor, such as Windows Notepad, TextEdit, or SimpleText (for Mac).

Once usernames and passwords have been downloaded and saved, the Researcher can contact study Respondents to provide them with the ASA24 Respondent Website URL.
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(https://asa24.nci.nih.gov), username, and password information. Once Respondents begin entering recall or record data into the ASA24 Respondent Website, the Researcher can visit the Researcher Website to obtain reports on the status of recalls or records and analytic files with food and nutrient data. Details on reports and analytic files are provided in the following sections (see Data Analysis).

Managing Respondent Accounts

Once Respondent Accounts have been created (either through the Import File or through the Respondent Accounts Wizard), study staff can make necessary changes, including deleting accounts, changing passwords, or locking or unlocking accounts on the Manage Respondent Accounts page of the Respondent Accounts tab (Figure 6-22). The Respondent Accounts tab includes both the Manage Respondent Accounts and Create Respondent Accounts pages; to toggle between them, select the Create Respondent Accounts button on the Manage Respondent Accounts page or the Manage Respondent Accounts button if you are on the Create Respondent Accounts page.

Figure 6-22. Manage Respondent Accounts
● **To Find a Respondent**, enter the username in the box and select the **Go** button. The table will display the details for the username entered.

● **To Delete a Respondent**, select the check box in the Select column next to the Respondent username and select the **Delete Selected** link above the table. Note that all data associated with the Respondent username will be deleted from the study and cannot be retrieved.

● **To Lock a Respondent’s Account**, select the check box in the Locked column in the row with the Respondent's name and select the **Save** button below the table. Locking the account prevents the Respondent from accessing the ASA24 Respondent Website.

● **To Unlock a Respondent's Account**, deselect the check box in the Locked column in the row with the Respondent’s name (this box should be checked if the account is already locked) and select the **Save** button below the table. A Respondent’s account may be locked manually to prevent access (see above) or automatically as a result of 5 failed login attempts.

● **To Reset a Respondent's Password**, select the key icon in the **Reset Password** column in the row with the Respondent's name. You will then be prompted to enter a new password.

● **To Select All Respondents** in the table, use the **Select All** link above the table.
7. Monitoring Study Progress

Researchers can monitor study progress by tracking completion of recalls and records on the Track Recall/Record tab.

Data can be viewed for all recalls/records for all Respondents, or by a subset of Respondents or a subset of recalls/records by filtering on specific criteria. Respondent-level data contain summary information about Respondents (i.e., one row per Respondent) (Figure 7-1 below). Viewing Respondent-level data enables a Researcher to identify the overall status of a Respondent (e.g., date of next Scheduled recall, number of recalls or records completed).

Recall- and record-level data contain summary information about attempts (i.e., one row per attempt) (Figure 7-2 below). For Unscheduled recalls and food records there can only be one attempt per recall/record, so this is equivalent to one row per recall/record. Viewing recall/record-level data enables the Researcher to view information about a specific attempt (e.g., completed or started but not finished, reporting date, etc.).

In addition, filters can be applied. To filter, select the relevant study from the top of the page and select any options you wish to use as filters; then select Filter to display the results. The results are presented in data grids, which can be downloaded using the Export buttons. These files will be available as CSV files.

Respondents Tab (Figure 7-1)

Column fields in the reports generated using the Respondents tab are as follows (note that some fields do not apply to Unscheduled studies or to studies collecting records):

- StudyID
- Username
- Next Recall (for Scheduled recall studies only)
- Next Attempt (for Scheduled recall studies only)
- Next Reporting Date (for Scheduled recall studies only)
- Completed Recalls and Records
Recall/Record Tab (Figure 7-2)

Using the Recall/Record tab, the Researcher can view information for all study recalls/records (Figure 7-2) or filter data based on specified criteria. Grids viewed using the Recall/Record tab will include as many rows per Respondent as there are recalls or records and attempts (e.g., two recalls with four attempts would have eight rows). This screen is useful for obtaining past or future information about Respondents’ recalls/records.

If the Respondent Nutrition Report option (only available for recalls collected using ASA24-2016 US version) was selected during study setup, Researchers can obtain the report by selecting “View” in the Nutrition Report column on the Researcher website (see Figure 7-2). “View” will only be available for Respondents who, after they completed their recall, indicated that they
would like a Respondent Nutrition Report. After selecting “View” on the row for a Username, a new page will open with the contents of the report. Please note, Respondent Nutrition Reports are not available for ASA24-ASA24-Canada-2016 or ASA24-Australia-2016.

No feedback is provided by the ASA24 system to Respondents for versions prior to 2016, and output files available from the Researcher site are not formatted for the lay public. However, Researchers, clinicians or staff can use the output files to provide information to Respondents as they desire.

Column fields in the reports generated using the Recall/Record tab include the following:

- Username
- Reporting Date
- Completion Status
- Number of Sessions (number of log-ins)
- Total Session Duration
- Language (in which the recall/record was completed)
- Calories (consumed during recall/record day)
- Number of Eating Occasions (i.e. meals, snacks, drinks)
- Number of Food Codes
- Nutrition Report (also known as the Respondent Nutrition Report)
Researchers can also filter by recalls/records completed during a specific date range or for a specific Respondent. To filter for recalls/records completed by a specific Respondent, enter the Respondent’s username in the corresponding field on the page. Then select any other relevant search criteria – i.e., date range, recall/record completion status – and use the Filter button at the bottom of the tab to display the selections. To clear and start a new search or view information for all Respondents, use the Clear Filter link at the top of the tab.
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8. Data Analysis

Once Respondents have entered recall/record data using the ASA24 Respondent Website, the Researcher Website Analytic File tab enables the Researcher to request food and nutrient analytic files for all versions.

Analyses can be run for all Respondents (batch) or for the last recall/record of one Respondent (instant). Batch files are cumulative. The following files are generated for each request for analytic files made via the Researcher Website:

Data file names for ASA24-2016, ASA24-Canada-2016 and ASA24-Australia-2016 versions:

Note the naming convention used for reports is: AbbreviatedStudyName_ReportSequenceNumber_ReportType.csv

<table>
<thead>
<tr>
<th>Analysis Filename</th>
<th>Content Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turtle_6225_Responses.csv</td>
<td>MySelections Analysis File - Food and supplement names from the Quick List, probe questions and answers.</td>
</tr>
<tr>
<td>Turtle_6223_Items.csv</td>
<td>Individual Foods Analysis File – FNDDS food codes <em>(AUSNUT in Australian version)</em>, gram weights, nutrients, and Food Pattern Equivalents for each food reported <em>(no Food Pattern Equivalents in Australian version)</em></td>
</tr>
<tr>
<td>Turtle_6226_Totals.csv</td>
<td>Daily Total Analysis File – FNDDS nutrients codes <em>(AUSNUT in Australian version)</em> and Food Pattern Equivalents for all foods in a given day <em>(no Food Pattern Equivalents in Australian version)</em></td>
</tr>
<tr>
<td>Turtle_6224_INS.csv</td>
<td>Individual Supplements Analysis File – Supplement Codes with their nutrients – keeping only those nutrients which are related to the FNDDS <em>(AUSNUT Supplement Codes with their nutrients in Australian version)</em></td>
</tr>
<tr>
<td>Turtle_6228_TS.csv</td>
<td>Daily Total Supplements Analysis File – total nutrients from all supplements reported in a given day – keeping only those ingredients which are related to the FNDDS <em>(does not apply to Australia version)</em></td>
</tr>
<tr>
<td>Turtle_6227_TNS.csv</td>
<td>Daily Total Nutrients from Foods and Supplements Analysis File – FNDDS <em>(AUSNUT in Australian version)</em> nutrients from all foods and supplements reported in a given day</td>
</tr>
</tbody>
</table>
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Data file names for ASA24-2014 versions:

Note the naming convention used for reports is: AbbreviatedStudyName_ReportSequenceNumber_ReportType.csv

<table>
<thead>
<tr>
<th>Analysis Filename</th>
<th>Content Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mango_22_MS.csv</td>
<td>MySelections Analysis File - Food and supplement names from the Quick List, probe questions and answers.</td>
</tr>
<tr>
<td>Mango_23_INF.csv</td>
<td>Individual Foods Analysis File – FNDDS food codes, gram weights and nutrients for each food reported</td>
</tr>
<tr>
<td>Mango_24_TN.csv</td>
<td>Daily Total Nutrients Analysis File - FNDDS nutrients from all foods in a given day for each recall</td>
</tr>
<tr>
<td>Mango_25_INFMYPHEI.csv</td>
<td>Individual Foods MyPyramid HEI Analysis File – FNDDS Food Codes, Gram weights, MyPyramid Equivalents and HEI Whole Fruit variable</td>
</tr>
<tr>
<td>Mango_26_TNMYPHEI.csv</td>
<td>Daily Total Nutrients MyPyramid HEI Analysis File – FNDDS MyPyramid Equivalents and HEI Whole Fruit variable from all foods in a given day</td>
</tr>
<tr>
<td>Mango_27_INS.csv</td>
<td>Individual Supplements Analysis File – Supplement Codes with their nutrients – keeping only those nutrients which are related to the FNDDS</td>
</tr>
<tr>
<td>Mango_28_TS.csv</td>
<td>Daily Total Supplements Analysis File – total nutrients from all supplements reported in a given day – keeping only those ingredients which are related to the FNDDS</td>
</tr>
<tr>
<td>Mango_29_TNS.csv</td>
<td>Daily Total Nutrients from Foods and Supplements Analysis File – FNDDS nutrients from all foods and supplements reported in a given day</td>
</tr>
</tbody>
</table>

Below are some details about the types of data are available (see Appendices C-J for more information about analysis files generated):

- **My Selections:** Names of foods drinks, supplements reported and probe questions and answers for each Respondent, by day.
**Individual Foods and Pyramid Equivalents:** For each food and beverage item reported for a recall or record day, this file contains a row that specifies the associated food codes, gram weights, and nutrient values based on a database associated with each version. For U.S. versions this is FNDDS; for Canadian versions it is the Canadian Nutrient File; and for the Australian version it is the AUSNUT database. It also includes the MyPyramid Equivalents (for all ASA24-2014 versions not including Canada) or Food Patterns Equivalents for the U.S. version of ASA24-2016 and ASA24-Canada-2016. MyPyramid Equivalents or Food Patterns Equivalents can be used by Researchers to derive Healthy Eating Index (HEI) variables and scores (SAS code is available for calculating HEI scores).

**Daily Total Pyramid Equivalents:** MyPyramid Equivalents or Food Patterns Equivalents (not available for ASA24-Canada-2014 or ASA24-Australia-2016) from all foods reported, by Respondent per day (each row is a day) based on the MPED or FPED, as well as total nutrient values for foods from FNDDS. MyPyramid Equivalents or Food Patterns Equivalents can be used by Researchers to derive HEI variables and scores (SAS code is available for calculating HEI scores). As of the time of this documentation, food group equivalents are not available for the Canadian version.

Additional information on the FNDDS, MPED, and FPED are available from the U.S. Department of Agriculture. The versions of the databases applied depend on the ASA24 version (Appendix B).

For studies in which the optional supplements module is selected in versions prior to 2016 or when 2016 Respondents report supplements, Researchers will also receive up to three additional analytic files:

- **Individual Supplements:** National Health and Nutrition Examination Survey Dietary Supplement Database (NHANES-DSD) supplement codes for U.S. versions, Licensed Natural Product Database and NHANES-DSD supplement codes for Canadian version and AUSNUT supplement codes for Australian version and nutrients for each supplement reported by each Respondent, by recording day.

- **Daily Total Supplements:** Nutrients from all supplements in a given day, by Respondent and recording day.

- **Daily Total Nutrients from Foods and Supplements:** Nutrients from foods and supplements, by Respondent and recording day; this file includes only intakes that have an entry in the Individual Supplements file.

The food, supplement, and nutrient databases used in each version of the Respondent Website are available in Appendix B. Data dictionaries applicable to the 2016 and 2014 versions of the
ASA24 Researcher Instructions

ASA24 system Respondent sites are available in Appendices C-J. The data dictionaries and sample output files are also provided on the Researcher site home page.

Requesting Analytic Files

To obtain nutrient and other results for Respondents, go to the Analytic Files tab (Figure 8-1) and choose the study of interest from the Selected study drop-down menu.

Figure 8-1. Analytic Files Tab

The All Respondents (batch) option generates reports for all recalls/records completed to date. A request number and estimated delivery time will be displayed. Typically, files requested for all Respondents will be available by the next business day by 6 a.m. Eastern Time. To access the files, return to the site the next business day and go to the Analytic Files tab (Figure 8-1). Select the link in the Request File column to download and save files. The data files are provided in CSV format and can be opened using Excel.

A Researcher can also view analyses for a single Respondent. The Respondent (instant) option (Figure 8-2) allows the user to generate near real-time reports for a particular Respondent’s last recall or record, which may be useful in a clinical or teaching setting. To request an instant
Asa24 Researcher Instructions

report, select **One Respondent (instant)** and enter the username for the Respondent of interest in the text box. Select **Submit** and results will be returned in approximately 15 minutes. The resulting files will include output for all recalls/records completed by the Respondent.

**Figure 8-2. One Respondent (instant)**

As with any data collection initiative, Researchers should carefully assess the quality of the data. To assist Researchers in assessing data quality, analytic files include a status flag to indicate whether a recall or record was completed (i.e., whether the Respondent completed the recall/record through the last question). Refer to the data dictionaries for descriptions of the variables ([Appendices C-J](#)). Incomplete recalls or records may be deemed acceptable by a Researcher depending upon how far the Respondent made it through the program and what data are missing (e.g., missing a valid response to the final question only, which queries whether intake was usual, as opposed to missing details on portion size). It is also possible that a Researcher may wish to exclude a recall or record coded as Complete by the ASA24 system because the data entered by the Respondent are of poor quality. **Tips** on reviewing output data are available.

**9. Key Terms**

**ASA24 Help Desk:** The ASA24 Help Desk is monitored by NCI-designated staff charged with monitoring and maintaining the ASA24 Researcher and Respondent Websites. The administrator provides general support to Researchers throughout study set-up and administration. Email **ASA24Helpdesk@westat.com** to contact the Help Desk.

**Attempts:** For Scheduled Recall studies only (see below), Researchers can specify the number of times a Respondent can try to complete each recall. For example, for a study collecting 3 days of recall data, the Researcher may choose to allow the Respondent 4 attempts (i.e., 4 different dates) to complete each recall, resulting in a total of 12 attempts. This information will be specified by the Researcher as part of the study setup process.
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Consecutive Recalls: Researchers may wish to have Respondents complete recalls for consecutive days, in order to obtain data for periods longer than 24 hours. However, given that it is possible to collect food records using all 2016 versions of ASA24, Researchers should consider if this is a better option than collecting Consecutive Recalls. Consecutive recalls are possible only under the following conditions:

1. Intake Time frame of Midnight to Midnight and Respondents must finish reporting in 24 hours OR
2. Intake Time frame of Last 24 Hours and Respondents logging in to the system at the exact same time each day.

For example, in a study with an Intake Time frame of Last 24 Hours, if a Respondent logs in at noon on Monday for the first recall and noon on Tuesday for the second recall, information on food and drinks consumed during the previous 48 hours will be captured. However, if a Respondent logs in at noon on Monday and 2:00 p.m. on Tuesday, information on food and drinks consumed from noon to 2:00 p.m. on Monday will be missing.

Consecutive recalls are not possible for studies with an Intake Time frame of Midnight to Midnight if Respondents must finish reporting in 32 hours.

Consecutive-Day Record (records only): For studies with Consecutive Records, Respondents report dietary intake for two or more consecutive days. A Consecutive Record will begin on the first day a Respondent logs in. If Researchers choose a Consecutive study type, they must specify the maximum Number of Consecutive Days that Respondents will report for a Record. If collecting multiple consecutive day Records, the number of consecutive days for each record must be the same. For example, a Researcher wishing to collect a three-day record would enter “3” as the maximum number of consecutive days. If they wanted to collect a second record within the same study, it must also be a three-day food record.

Data Dictionary: A data dictionary identifies the contents of an analytic file, including the names of the nutrient fields. Data dictionaries are available for download from the Researcher Website home and included as Appendices C-J.

Demo_User Account: For each registered study, a Demo_User Account is provided that enables Researchers to view customizations they make to the Respondent Website (e.g., logo, welcome and thank-you text, optional modules) and to complete one or more practice recalls or records. The Demo_User Account details are included in the first username/password file that is downloaded as part of the process of creating Respondent accounts. Recall data entered to the Respondent Website using the Demo_User Account do not appear in the study reports or analytic files.

Intake Date (applies to recalls only): The Intake Date is the date for which a Respondent will report their food and drink consumption. If a Respondent is providing intake information from
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Midnight to Midnight the previous day, then the Intake Date will be that day. If a Respondent is providing intake information for the Last 24 Hours, the Intake Period will generally span two calendar dates, and the Intake Date will be the later of the two dates.

**Intake Time frame (applies to recalls only):** The Intake Time frame refers to the 24-hour period for which Respondents will recall their food and drink consumption. The Time frame will be either: Midnight to Midnight or the Last 24 Hours, as defined by the Researcher during study setup.

**Nonconsecutive Day Record (applies to records only):** For studies with Nonconsecutive records, Respondents can report any number of nonconsecutive, single-day Records. For either study type.

**Recall/Record Number:** The Recall/Record Number for each recall or record completed by a Respondent is displayed in the analytic files that can be downloaded from the site (see Data Analysis).

**Reporting Date:** For recalls, The Reporting Date is the date on which the Respondent accesses ASA24 and reports food and drink intake for either the previous day from Midnight to Midnight or for the Last 24 Hours. For records, the reporting date can be the same day as the intake date. The Reporting Date for an intake is displayed on the output files that can be downloaded from the Analytic Files tab.

**Researcher:** The term Researcher may denote a researcher, clinician, instructor, member of the study staff, or other health professional accessing the ASA24 Researcher site.

**Respondent:** The term Respondent includes anyone completing a recall on the ASA24 Respondent site. In any given study or research findings, researchers may choose to use other terms such as participant or study subject; this term is meant to encompass these and other synonyms.

**Respondent Nutrition Reports:** If Researchers have selected this option, Respondents are provided with the opportunity to obtain formatted reports that provide information on how their daily intake of nutrients and food groups compares to dietary guidance. These reports are also available to Researchers. These reports are not available for ASA24-Canada-2016 or ASA24-Australia-2016.

**Scheduled Recall Study (recalls only):** A Scheduled Study is one in which Intake Dates are predetermined during study set-up and the ASA24 system permits access only on the applicable Reporting Dates. By limiting access, the Scheduled study approach is helpful in ensuring that Respondents complete their recalls on the dates desired by the Researcher. Reporting Dates can be generated by the Respondent Accounts Wizard or accessed through the Track Recalls tab that used the Intake Dates from the uploaded Import File. For scheduled studies, dates can
be set for multiple attempts (i.e., backup dates) for each recall in case the Respondent does not complete the recall on the assigned date.

**Session:** Throughout the ASA24 site, the term session is used to signify a period during which a Respondent is continuously logged in to the site. When setting up a study that will collect recalls, Researchers can choose whether Respondents will be allowed a single session per recall or multiple sessions. The ASA24 system will automatically log a Respondent out after 30 minutes of inactivity; this allows the Respondent to step away from their computer for a brief period while completing a recall within a single session. As records are to be completed in real time, it is expected that Respondents will log in and out of the website multiple times. Each of these sessions is recorded.

**Study Abbreviation:** The Study Abbreviation or Short Study Name is provided by the Researcher when setting up a new study. It must be unique to the ASA24 system and is composed of three to six letters or numbers with no spaces. The username for each Respondent in a study will be a combination of the Study Abbreviation and the StudyID.

**StudyID:** Researchers must supply an original study identifier for each Respondent, either through the Respondent Accounts Wizard or through the Import File. The StudyID is used on all reports and analytic files to enable the Researcher to link ASA24 data with other study data. It must be composed of numbers only, up to a maximum of 24 digits.

**Unscheduled Recall Study (applies to recalls only):** An Unscheduled Recall Study is one in which Intake Dates and Reporting Dates are not scheduled within the ASA24 system, requiring the Researcher to manage the timing of recalls outside the ASA24 system. Researchers should bear in mind that when the unscheduled study option is selected, Respondents’ access to the ASA24 system will not be limited to certain dates.

**Usernames and Passwords:** Each ASA24 system user must have a username and password to log into the Researcher or Respondent websites. Researchers and study staff are assigned usernames and passwords to access the Researcher Site. For Respondents, the username will be composed of the Study Abbreviation and the StudyID specified by the Researcher.
10. Tips for Managing Studies Using the ASA24 System

Pilot Studies

Researchers are encouraged to conduct a pilot study to demonstrate or test the utility of the ASA24 system in their study population. Researchers can either register the pilot study by entering all of the necessary information or by uploading dedicated StudySubjectIDs for piloting and testing. Refer to the instructions for Registering to use the ASA24 system.

Large Studies (100,000 or more Respondents) with Waves

If desired, Researchers can treat each wave of data collection (e.g., baseline and follow-up recalls or records) as a separate study. It will be possible to view information about all of the studies from the Researcher Website. Data from the waves can be downloaded and merged together and with other study data.

Multi-site Studies

Researchers with multi-site studies can treat each site as a separate study. The coordinating center or principal investigator can have access to all sites and each site can designate particular staff to have access to their data. Alternatively, Researchers can have one large study with their own designation of site.

Adding Respondents

Researchers can append new Respondents to an existing study, as needed, by using the Respondent Accounts Wizard or uploading a new Import File (see Setting Up a Study). This is particularly useful for studies with rolling enrollment.

Adding Recalls or Records

To add additional recalls or records to an existing study, use the Respondent Accounts Wizard (recalls only) or upload a new Import File (see Setting Up a Study). All new Intake Dates must be from the present day forward.

Access from a Study Website

Some studies may have a centralized Website for study Respondents. Please use the Contact Us function from the Researcher Website to contact the ASA24 Help Desk (ASA24Helpdesk@westat.com) regarding single sign-on options to enable your Respondents to access ASA24™ from your study Website. A redirect to the ASA24 Respondent Website can be provided, meaning the Respondent would not require an additional username and password to log into and use the ASA24 system.
11. Helpful Links

- **NCI ASA24 Website**
  *Includes background information, downloadable resources for study participants and staff, and FAQs*
  

- **NCI ASA24 Canada version**
  

- **NCI ASA24 Australian version**
  

- **ASA24 Researcher Website**
  

- **Respondent Website demonstration**
  Users can choose among the available versions, including ASA24-2016, ASA24-2014, and ASA24-Kids-2014
  

- **Respondent Website**
  *Respondents will be directed to ASA24, ASA24-Kids, or ASA24-Canada based on study configuration*
  

- **Known Issues and Workarounds**
  

- **ASA24 Listserv**
  *Allows potential/current users to communicate with the ASA24 team and other users*
  
  [https://list.nih.gov/cgi-bin/wa.exe?A0=ASA24-L](https://list.nih.gov/cgi-bin/wa.exe?A0=ASA24-L)
Appendix A: ASA24 Researcher Agreement

Electronic Certification (E-Certification) and Agreement for use of the Automated Self-Administered 24HR ("ASA24") and Transfer of Data

Epidemiology and Genomics Research Program

Division of Cancer Control and Population Sciences

National Cancer Institute

PROVIDER: Epidemiology and Genomics Research Program, Division of Cancer Control and Population Sciences, National Cancer Institute, National Institutes of Health (NIH), an agency of the United States Public Health Service (PHS) within the Department of Health and Human Services (HHS)

RECIPIENT: Academic and clinical researchers conducting observational studies with human subjects

DATA: Human dietary intake data requested by the RECIPIENT and supplied by the PROVIDER under this Agreement from the database associated with Automated Self-Administered 24HR ("ASA24") Researcher Website. “DATA” does not mean the database or software used to create and run the ASA24 Website.

Read the Terms of Agreement carefully; RECIPIENT must agree to these terms to use the ASA24 system and receive the DATA.

In response to RECIPIENT’s request for the DATA identified above, the PROVIDER and the RECIPIENT agree to the following:

1. The DATA are the property of the PROVIDER for distribution purposes and are made available as a service to the research community.

2. The RECIPIENT will not use the DATA unless it has obtained all appropriate clearances to use the data, including but not limited to clearance by an Institutional Review Board or equivalent governing body. The RECIPIENT agrees to use the DATA in compliance with all applicable statutes and regulations.

3. The RECIPIENT may redistribute DATA to third parties for research, clinical, and academic purposes.

4. The RECIPIENT agrees to acknowledge the source of the DATA in any publications reporting use of the DATA.

5. Any DATA delivered pursuant to this Agreement are understood to be experimental in nature. THE PROVIDER MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESS OR IMPLIED
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WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE DATA WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK, OR OTHER PROPRIETARY RIGHTS.

6. No indemnification for any loss, claim, damage, or liability is intended or provided by any party under this agreement. Each party shall be liable for any loss, claim damage, or liability that said party incurs as a result of said party's activities under this agreement, except that the PROVIDER, as an agency of the United States, assumes liability only to the extent as provided under the Federal Tort Claims Act (28 U.S.C. Chapter 171). If the RECIPIENT is a component of or an agency of a State government, then RECIPIENT assumes liability only to the extent authorized under the laws of the State or Commonwealth.

7. RECIPIENT agrees not to claim, infer, or imply endorsement of the RECIPIENT by the PROVIDER and by the Government of the United States of America.

8. Upon request by the PROVIDER, the RECIPIENT will perform any of the following as directed by the PROVIDER: (a) immediately cease use of the DATA; (b) dispose of DATA in the RECIPIENT’s possession.

Any false or misleading statements made, presented, or submitted to the Government, including any relevant omissions, under this Agreement are subject to all applicable civil and criminal statutes including Federal statutes 31 U.S.C. §§ 3801–3812 (civil liability) and 18 U.S.C. § 1001 (criminal liability including fine(s) and/or imprisonment).

By accepting the terms of this agreement, the RECIPIENT certifies that the information submitted by the RECIPIENT is true, complete, and accurate to the best of RECIPIENT’s knowledge. The person accepting the terms of this agreement for the RECIPIENT has the requisite power and authority to accept the terms of this Agreement.
Appendix B: Nutrients and Food Groups Included in ASA24 Analysis Reports

Nutrients in ASA24 are provided by USDA’s FNDDS, while the food group data is provided by the MyPyramid Equivalents Database and the Center for Nutrition Policy and Promotion’s fruit database. The following table lists the versions of FNDDS and MPED used for each release of ASA24.

Nutrient, Food Group, and Supplement Databases by Respondent Website version

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food codes and nutrient values</strong></td>
<td>Food and Nutrient Database for Dietary Surveys (FNDDS), version 1.0.</td>
<td>Food and Nutrient Database for Dietary Surveys (FNDDS), version 4.1. The nutrients included are listed below. Canada: Canadian Nutrient File (CNF2015) which is in part based on FNDDS 4.1</td>
<td>ASA24-2016: Food and Nutrient Database for Dietary Surveys (FNDDS), 2011-12 ASA24-Canada-2016: Canadian Nutrient File (CNF2015) supplemented with FNDDS 2009-10 (version 5.0) and 2011-12 ASA24-Australia-2016: Australian Food, Supplement and Nutrient Database (AUSNUT) 2011-13 Nutrient File*</td>
</tr>
<tr>
<td><strong>MyPyramid Equivalents</strong></td>
<td>MyPyramid Equivalents Database (MPED), version 1.0.</td>
<td>MyPyramid Equivalents Database (MPED) version 2.0 supplemented with the USDA Center for Nutrition Policy and Promotion MPED Addendum to allow compatibility with FNDDS 4.1; nutritionists on the ASA24™ team imputed values for 9 food codes for which MyPyramid Equivalents have not yet been assigned by USDA. Canada: not available</td>
<td>ASA24-2016 and ASA24-Canada-2016: Food Patterns Equivalents Database (FPED) 2011-12 ASA24-Australia-2016: Not available</td>
</tr>
</tbody>
</table>
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| --- | --- | --- |

*Australian version does not include the following nutrients: energy (without dietary fibre), available carbohydrate (without sugar alcohols), starch, ash, total long chain omega 3 fatty acids, total trans fatty acids, pro-vitamin A, niacin derived equivalents, iodine, tryptophan.

Information about the nutrient and food group databases is available using the links below:

- FNDDS
- FPED 2011-2012
- MPED version 2.0
- AUSNUT 2011-13

## List of Nutrients and Food Groups Included in the ASA24 Analysis Reports

Researchers, clinicians, and educators can use the ASA24 system to analyze 65 nutrients and 37 food groups (U.S. and Canadian versions) from food recall or record data. Analyses for ASA24-Australia-2016 provide 41 nutrients and no food groups.

Note: ASA24-Australia-2016 is based on the [Australian Food, Supplement and Nutrient Database (AUSNUT) 2011-13](#). The AUSNUT file does not contain some nutrients that are included in the U.S. databases used to create ASA24; therefore, 24 of the nutrient
variables in the analytic files contain no data. Missing nutrients in the Australian version are noted with an * below. Additionally, ten nutrients (energy without dietary fibre, available carbohydrate without sugar alcohols, starch, ash, total long chain omega 3 fatty acids, total trans fatty acids, pro-vitamin A, Niacin derived equivalents, iodine, tryptophan) that are included in the AUSNUT file are not available in ASA24-Australia-2016. Note also that there is currently no food group database associated with the Australian version.

More information is available on the nutrient and food group databases used for all versions of ASA24. A full description of these categories can be viewed [here](#).

The ASA24 data analysis files provide data on the following [nutrients and food groups]:

### NUTRIENTS

*Not available in the Australian version.

#### Macronutrients & Energy

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (kcal; kJ in AUS version)</td>
<td></td>
</tr>
<tr>
<td>Protein (g)</td>
<td></td>
</tr>
<tr>
<td>Total Fat (g)</td>
<td></td>
</tr>
<tr>
<td>Carbohydrate (g)</td>
<td></td>
</tr>
<tr>
<td>Water (g)</td>
<td></td>
</tr>
<tr>
<td>Alcohol (g)</td>
<td></td>
</tr>
<tr>
<td>Sugars, total (g)</td>
<td></td>
</tr>
<tr>
<td>Fiber, total dietary (g)</td>
<td></td>
</tr>
</tbody>
</table>

#### Vitamins

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Folate, total (mcg)</td>
<td></td>
</tr>
<tr>
<td>Folic acid (mcg)</td>
<td></td>
</tr>
<tr>
<td>Folate, food (mcg)</td>
<td></td>
</tr>
<tr>
<td>Folate, DFE (mcg_DFE)</td>
<td></td>
</tr>
<tr>
<td>Niacin (mg)</td>
<td></td>
</tr>
<tr>
<td>Retinol (mcg)</td>
<td></td>
</tr>
<tr>
<td>Riboflavin (mg)</td>
<td></td>
</tr>
<tr>
<td>Thiamin (mg)</td>
<td></td>
</tr>
<tr>
<td>Vitamin A, RAE (mcg_RAE)</td>
<td></td>
</tr>
<tr>
<td>Vitamin B-6 (mcg)</td>
<td></td>
</tr>
<tr>
<td>Vitamin B-12 (mcg)</td>
<td></td>
</tr>
<tr>
<td>Vitamin C (mg)</td>
<td></td>
</tr>
<tr>
<td>Vitamin D (D2 + D3) (mcg)*</td>
<td></td>
</tr>
<tr>
<td>Vitamin E, alpha-tocopherol (mg)</td>
<td></td>
</tr>
<tr>
<td>Added Vitamin E (mg)</td>
<td></td>
</tr>
<tr>
<td>Vitamin K, phyloquinone (mcg)*</td>
<td></td>
</tr>
</tbody>
</table>

#### Minerals

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium (mg)</td>
<td></td>
</tr>
<tr>
<td>Copper (mg)*</td>
<td></td>
</tr>
<tr>
<td>Iron (mg)</td>
<td></td>
</tr>
<tr>
<td>Magnesium (mg)</td>
<td></td>
</tr>
<tr>
<td>Phosphorus (mg)</td>
<td></td>
</tr>
</tbody>
</table>
Potassium (mg)  
Sodium (mg)  
Selenium (mcg)  
Zinc (mg)  

**Carotenoids**  
α Carotene (mcg)*  
β Carotene (mcg)  
β Cryptoxanthin (mcg)*  
Lycopene (mcg)*  
Lutein + Zeaxanthin (mcg)*

**Fats and Cholesterol**  
Total Fat (g)  
Cholesterol (mg)  
Fatty acids, total saturated (g)  
Fatty acids, total monounsaturated (g)  
Fatty acids, total polyunsaturated (g)  

**Specific Fatty Acids**  
4:0, Butanoic acid (g)*  
6:0, Hexanoic acid (g)*  
8:0, Octanoic acid (g)*  
10:0, Decanoic acid (g)*  
12:0, Dodecanoic acid (g)*  
14:0, Tetradecanoic acid (g)*  
16:0, Hexadecanoic acid (g)*  
16:1, Hexadecenoic acid, undifferentiated (g)*  
18:0, Octadecanoic acid, undifferentiated (g)*  
20:1, Eicosenoic acid, undifferentiated (g)*  
22:1, Docosenoic acid, undifferentiated (g)*  
18:2, Octadecadienoic acid (g)  
18:3, Octadecatrienoic acid (g)  
18:4, Octadecatetraenoic acid (g)*  
20:4, Eicosatetraenoic acid (g)*  
20:5 n-3, Eicosapentaenoic acid [EPA] (g)  
22:5 n-3, Docosapentaenoic acid [DPA] (g)  
22:6 n-3, Docosahexaenoic acid [DHA] (g)

**Other Substances**  
Caffeine (mg)  
Theobromine (mg)*  
Choline, total (mg)*
FOOD GROUP EQUIVALENTS (U.S and Canadian versions only)

4 Fruit categories expressed in cup equivalents including:

- Total fruits
- Whole citrus, melons, berries
- Whole other fruits
- Fruit juices

10 Vegetable categories expressed in cup equivalents including:

- Total vegetable (excludes legumes)
- Dark green vegetables
- Total red and orange vegetables
- Tomatoes and tomato products
- Other red and orange vegetables
- Total starchy vegetables
- White potatoes
- Other starchy vegetables
- All other vegetables
- Legumes (beans and peas) computed as vegetables

3 Grain categories expressed in ounce equivalents including:

- Total whole and refined grains
- Total whole grains
- Total refined grains

12 Protein categories expressed in ounce equivalents including:

- Total meat (includes eggs, soy, nuts and seeds; excludes legumes)
- Total meat (excluding eggs and vegetable sources)
- Beef, veal, pork, lamb and game meat
- Cured meats
- Organ meat
Poultry
Seafood high in n-3 fatty acids
Seafood low in n-3 fatty acids
Eggs and egg substitutes
Soy products excluding soy milk
Peanuts, tree nuts and seeds
Beans and peas (legumes) computes as protein foods

4 Dairy categories expressed in cup equivalents including:
Total milk, yogurt, cheese, and whey
Fluid milk products
Yogurt
Cheese

2 Fat categories expressed in grams including:
Fats naturally present in vegetable sources
Fats naturally present in meat sources

1 Added Sugar category expressed in teaspoon equivalents

1 Alcohol category expressed as number of drinks
Appendix C: Responses/My Selections Data Dictionary

Use these links to view the data dictionary for the file containing the response selections made by participants.

ASA24-2016 Response File Data Dictionary for a Recall for U.S. and Canada
ASA24-2016 Response File Data Dictionary for a Record for U.S. and Canada

ASA24-2016 Response File Data Dictionary for a Recall for Australia
ASA24-2016 Response File Data Dictionary for a Record for Australia

ASA24-2014 My Selections File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix D: Individual Foods and Nutrient (INF) Data Dictionary

Use this link to view the data dictionary for the file containing nutrient information for individual foods.

ASA24-2014 INF File Data Dictionary for a Recall for U.S., Kids, and Canada

This file is not available in ASA24-2016, ASA24-Canada-2016 and ASA24-Australia-2016.
Appendix E: Items/Individual Foods and Pyramid Equivalents Data Dictionary

Use these links to view the data dictionaries for the files containing nutrient and food group information for individual foods.

ASA24-2016 Items File Data Dictionary for a Recall for U.S. and Canada
ASA24-2016 Items File Data Dictionary for a Record for U.S. and Canada

ASA24-2016 Items File Data Dictionary for a Recall for Australia
ASA24-2016 Items File Data Dictionary for a Record for Australia

ASA24-2014 INFYPHEI File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix F: Daily Total Nutrients Data Dictionary

Use this link to view the data dictionary for the file containing total nutrient information for an intake day.

ASA24-2014 My Selections File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix G: Totals/Daily Total Nutrient and Pyramid Equivalents Data Dictionary

Use these links to view the data dictionaries for the files containing total nutrient and food group information for an intake day.

ASA24-2016 Totals File Data Dictionary for a Recall for U.S. and Canada
ASA24-2016 Totals File Data Dictionary or a Record for U.S. and Canada

ASA24-2016 Totals File Data Dictionary for a Recall for Australia
ASA24-2016 Totals File Data Dictionary for a Record for Australia

ASA24-2014 TNMYPHEI File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix H: Individual Supplements Data Dictionary

Use these links to view the data dictionaries for the files containing nutrient information for individual supplements.

ASA24-2016 INS File Data Dictionary for a Recall for U.S. and Canada
ASA24-2016 INS File Data Dictionary or a Record for U.S. and Canada

ASA24-2016 INS File Data Dictionary for a Recall for Australia
ASA24-2016 INS File Data Dictionary for a Record for Australia

ASA24-2014 INS File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix I: Daily Total Supplements Data Dictionary

Use these links to view the data dictionaries for the files containing total nutrients for supplements for an intake day.

ASA24-2016 TS File Data Dictionary for a Recall for U.S. and Canada
ASA24-2016 TS File Data Dictionary or a Record for U.S. and Canada

ASA24-2016 TS File Data Dictionary for a Recall for Australia
ASA24-2016 TS File Data Dictionary for a Record for Australia

ASA24-2014 TS File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix J: Daily Total Nutrients from Foods and Supplements Data Dictionary

Use these links to view the data dictionaries for the files containing total nutrients for foods and supplements for an intake day.

ASA24-2016 TNS File Data Dictionary for a Recall for U.S. and Canada
ASA24-2016 TNS File Data Dictionary or a Record for U.S. and Canada

ASA24-2016 TNS File Data Dictionary for a Recall for Australia
ASA24-2016 TNS File Data Dictionary for a Record for Australia

ASA24-2014 TNS File Data Dictionary for a Recall for U.S., Kids, and Canada
Appendix K: Modules

This section lists optional ASA24 modules which may be administered to Respondents.

Location Module

The **Location** module is activated by default because the recall of location may provide context to aid Respondents in recalling what they ate at a meal; however, this module can be turned off by the Researcher, if desired.

- Home
- Fast food Restaurant
- Other Restaurant
- Cafeteria
- Bar or Tavern
- Work (not in Cafeteria)
- Car
- Sports or entertainment venue
- Someplace else
- School, cafeteria
- School, not in cafeteria
- Don’t know

Food Source Module

The **Food Source** module queries about food source—i.e., where did the respondents get the food (or most of the ingredients for it). Please note that if this module is selected a question regarding source is asked for each food reported; selecting this module increases the time it takes to complete a recall or record. Researchers may contact the ASA24 Help Desk ([ASA24Helpdesk@westat.com](mailto:ASA24Helpdesk@westat.com)) to create a custom source list.

*If the food source module is selected, the location module must also be selected.*

- Supermarket or grocery store
- Convenience store
- Other store (any type)
- Produce stand, farmer’s market, orchard, or community supported agriculture (CSA) organization
- Fast food or drive-thru restaurant
- Other restaurant, bar or tavern
ASA24 Researcher Instructions

- School cafeteria
- Other cafeteria
- Grown or caught by you or someone you know
- Sport, recreation, or entertainment venue
- Soup kitchen, shelter, or food pantry
- Street vendor or vending truck
- Vending machine
- Child care center, day care, or camp
- Residential dining facility or adult day care center
- Other
- Don’t know

TV/Computer Use Module

The **TV and Computer Use** module collects information about TV and computer use during meals.

- Watching TV
- Using a Computer or laptop
- Using a mobile phone or tablet
- Neither of these

Ate With Module

The **Ate With** module collects information about who the respondent ate with.

- Yes (Indicate if Family Member or Other)
- No

Supplement Module

The **Supplement** module collects data about the supplements that were taken for the data collection period for a recall or record. In ASA24 versions prior to 2016, if the Supplement module is turned on, Respondents report supplements after reporting foods and beverages. In the 2016 versions of ASA24, Respondents can report supplements at the same time they report foods and beverages, regardless if this module is turned on. However, if this module is turned on in ASA24-2016, reminders to include supplements are included.
Respondent Nutrition Report Module (available for recalls for 2016 versions only)

Researchers can choose to provide reports to Respondents that compare daily nutrient and food group intakes to dietary guidance for ASA24-2016 (U.S. version and recalls only). If chosen, at the time a Respondent completes reporting for a recall, they will be asked if they would like a report. If yes, they will be asked to answer questions about sex and age and a downloadable report will immediately be generated for that day. View a sample report.