



After Action eXchange

AAX User Manual

This application was funded by the U.S. Department of Homeland Security and the U.S. Food and Drug Administration, and developed by the Food Protection and Defense Institute in collaboration with the National Agricultural Biosecurity Center at Kansas State University and the U.S. Food and Drug Administration.

Background of AAX 3

FoodSHIELD 4

FoodSHIELD AAX Integration 4

 Registration and Access 4

 User Roles 4

How to Access AAX..... 6

How to Create an event in AAX 7

How to Create a Survey 14

20.88 Agreements 18

 Capturing and Storing..... 18

 Record Sharing 22

Background of AAX

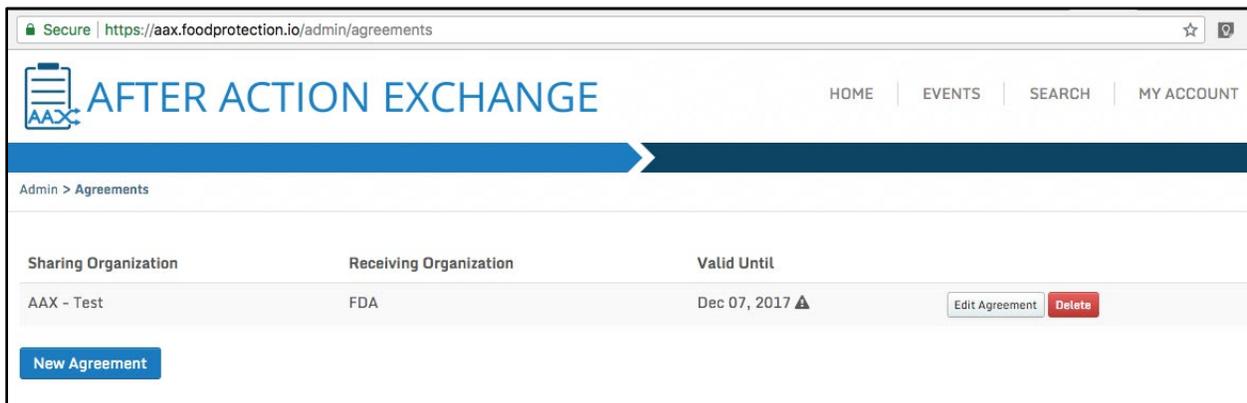
ORA/OP would like to promote higher frequency and consistency among Federal/State/Local jurisdictions conduct and complete After Action Reviews following food and feed contamination events by developing a module that makes it easier to issue the hotwash survey and compile/analyze the feedback.

Additionally, many times Federal/State/Local jurisdictions identify hotwash items but struggle to track and trend these lessons learned over time. This module will help facilitate this as well. This will be impactful for national capacity development: target where improvements need to be made or where improvements have been effective on a national scale. To achieve this goal the After Action Exchange (AAX) app was created.

AAX provides a searchable database of After Action Reports/Improvement Plans (AARs/IPs) from food and feed contamination events and training exercises. AARs/IPs are contributed by federal, state and local government public health and regulatory agencies with authority to respond to food and feed contamination events, and access to AAX is limited to these same agencies.

Users are able to search event and improvement plan data, view corrective actions, and retrieve full AAR documents for further analysis. With this information, users are able to learn from past events and exercises, suggest future exercise or preventive measures, and identify training needs. AAX enables those involved in responding to food and feed contamination events to more thoroughly summarize and prepare for effective responses.

AAX maintains information about users, their organizations, and events. AAX also maintains agreements to share data on events between organizations. AAX controls access to this information through organizational data sharing agreements configurable within the application. One organization may elect to share their data with any number of other organizations in AAX.



FoodSHIELD

FoodSHIELD is a web-based system for communication, coordination, education, and training among the nation's food and agriculture sectors. This secure system allows public health and food regulatory officials at the local, state, and federal levels across the nation to work together. It also helps communicate food safety information among other government agencies.

FoodSHIELD provides single sign-on and identity access management to a variety of apps and databases. In addition to single sign-on, FoodSHIELD provides a critical integration point for FDA users and their state partners.

FoodSHIELD AAX Integration

FDA and many of their state and local partners have FoodSHIELD accounts. To simplify the access process and to leverage agency user vetting and organizational record keeping, AAX users will have the option to access AAX from FoodSHIELD using their FoodSHIELD identity. This access mechanism will also reduce exposure of the user's password in that a user will not need to create a unique password for FoodSHIELD. Rather, the AAX app will be able to verify the user is coming from FoodSHIELD and has a valid account. Users can then pass through with their already authenticated access.

Registration and Access

To access AAX from FoodSHIELD, users first request access to the AAX App from FoodSHIELD. The App administration then has an opportunity to review and approve or deny the request for access. If approved, the user will be notified and upon the next visit to FoodSHIELD, clicking on the AAX app will automatically sign the user into AAX and direct them to the application. New users are automatically assigned a status of Guest. The AAX administrator has the option to promote users to Data Entry or Organization Administrator. See Figure 1 for the AAX Account Access Management workflow.

User Roles

User Roles include Guest, Data Entry, and Administrator:

- **Guest user** - may view records within their organization or in an organization that has shared access with the guests organization. Guest users can view all events via search. Access to full AAR/IPs may be restricted based on whether the user's organization has a 20.88 on record
- **Data Entry** - can add and edit events that they have created within their organization. Additionally, they may view all events via search. They may also see all events within their organization.
- **Organizational Administrator** – In addition the capabilities of a Data Entry user, an organizational administrator has access to edit Organization Resources which includes the ability to add and delete users and to edit data sharing agreements
- **Administrator** - A full administrator has the same privileges as an organizational administrator. Additionally, they have access to edit Event Resources and System Resources.

AAX Account Access Management

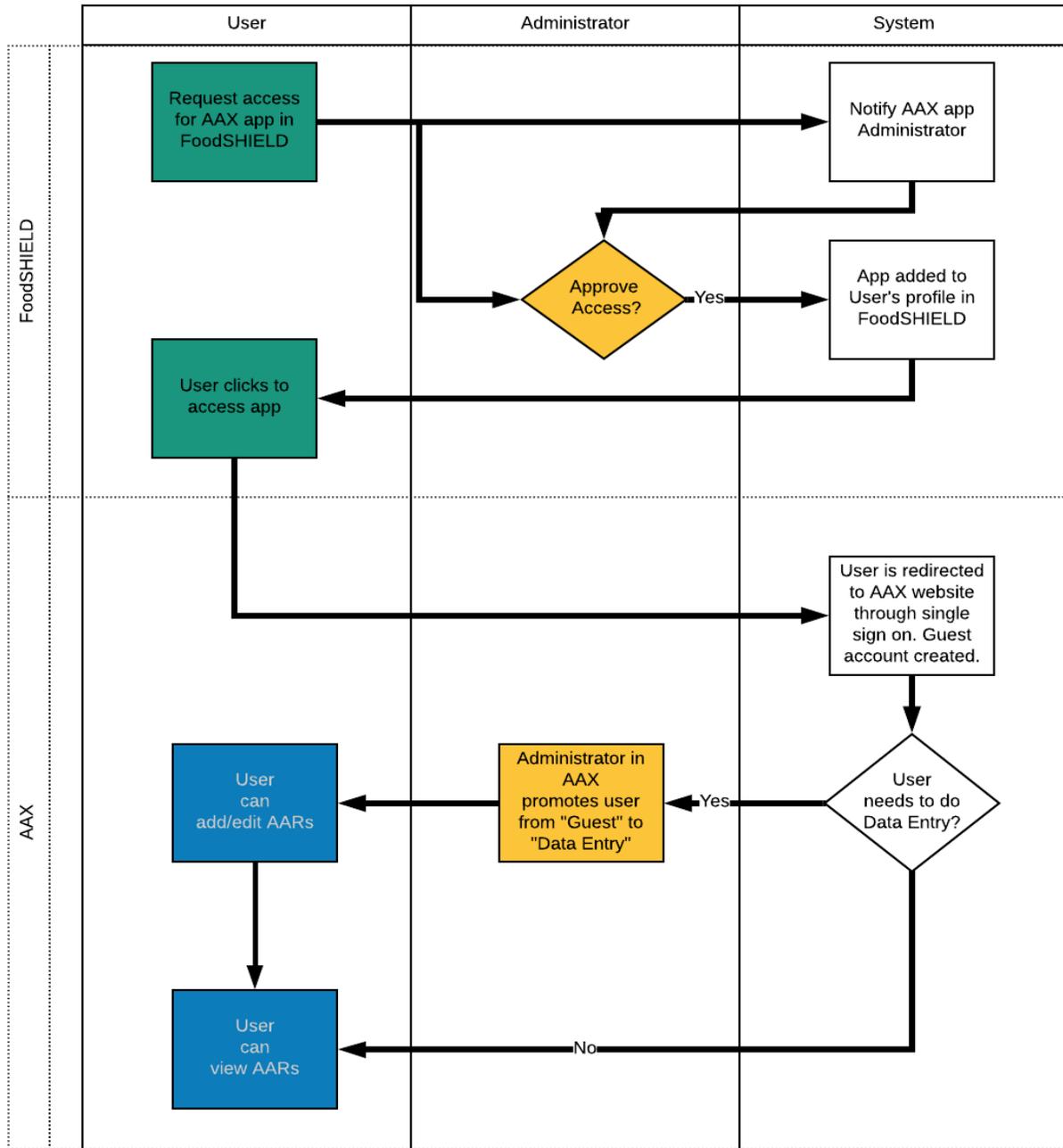
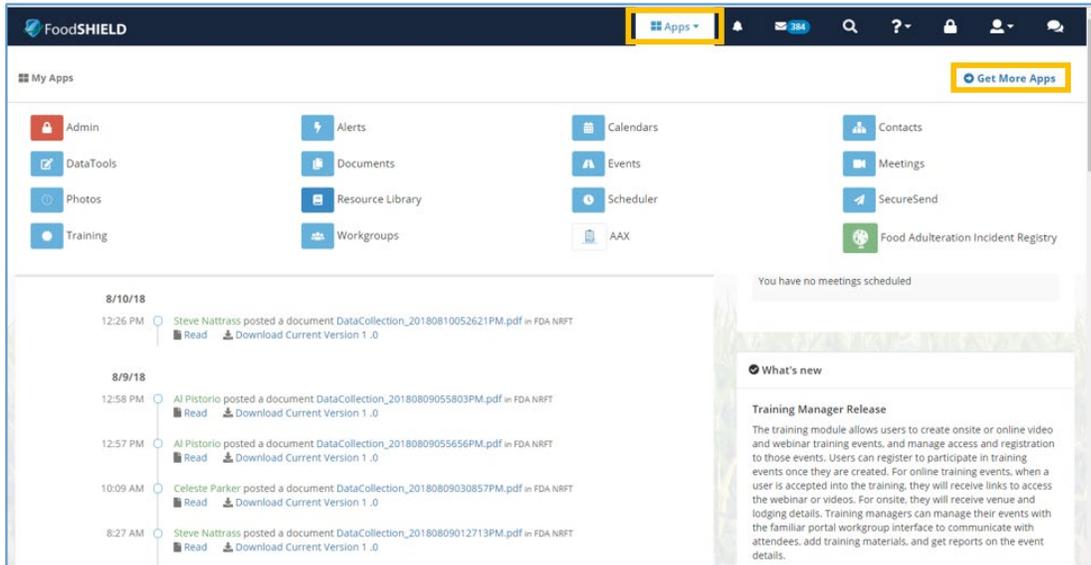


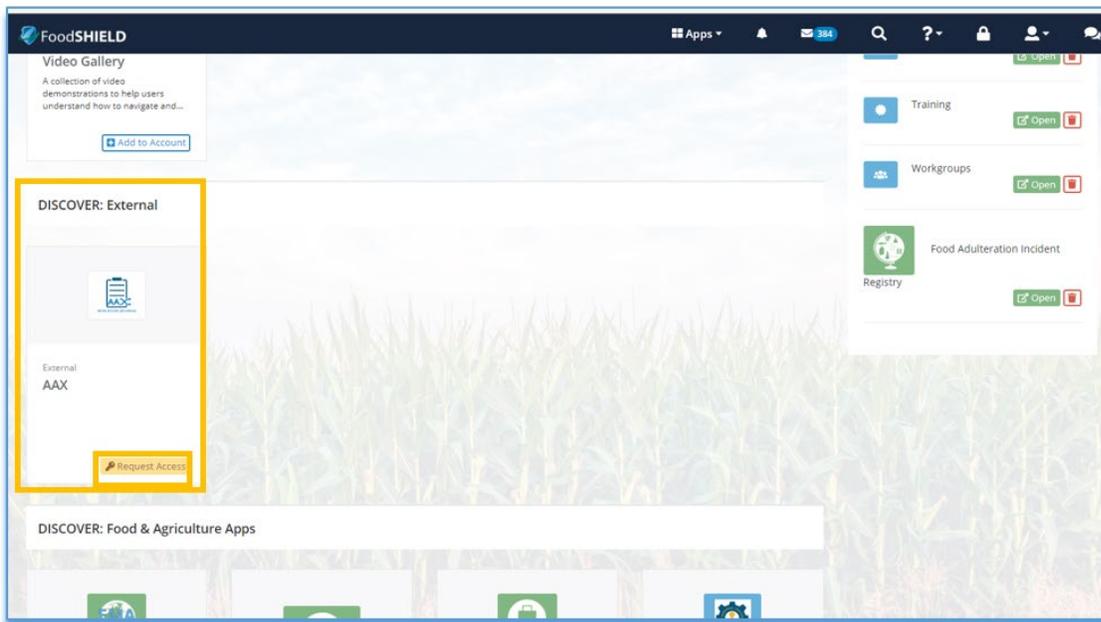
Figure 1

How to Access AAX

1. Login to FoodSHIELD
2. While on the FoodSHIELD home screen, Select “Apps” from the task bar in the upper part of the screen. Proceed to click “Get More Apps”



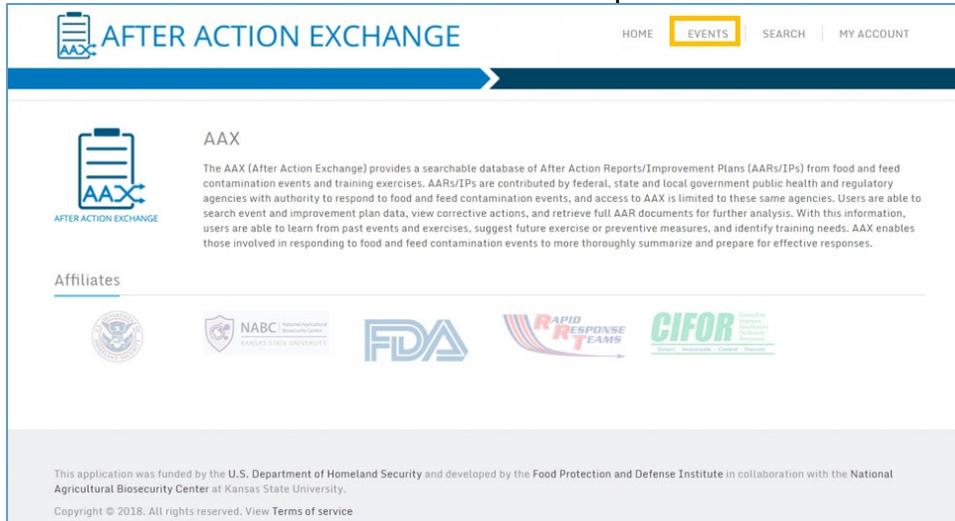
3. On the next screen, locate the AAX app and click on “Request Access”



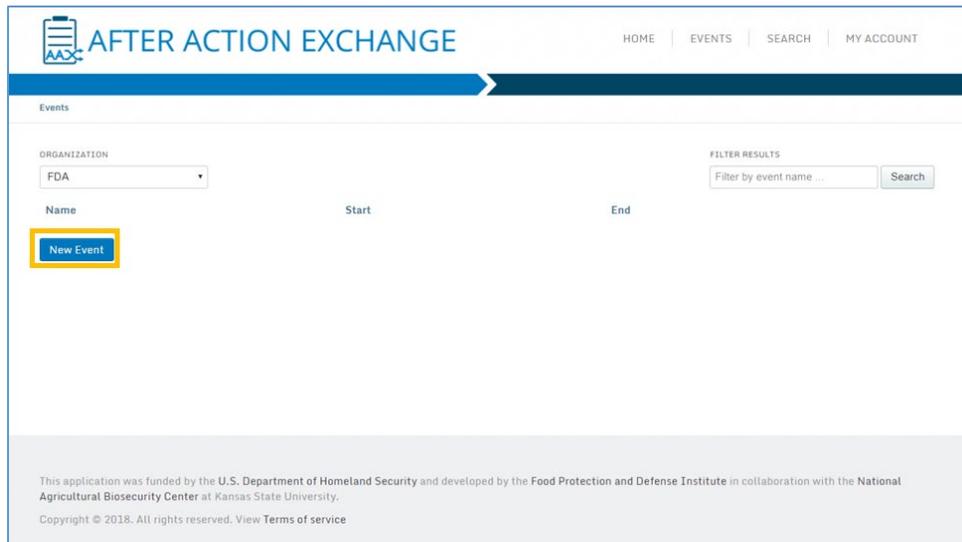
4. Once you click “Request AAX” the system will generate an email message confirming your app request. The system will also send a notification to the AAX administrator informing them of your request.
5. Once the AAX administrator approves your request you will receive another email confirmation that access has been granted.
6. To open AAX go to Apps under FoodSHIELD and click “AAX” from the dropdown

How to Create an Event in AAX

1. To create an event select “Events” at the top of the screen



2. Select “New Event”



3. You will then be brought to a screen with guided prompts

AFTER ACTION EXCHANGE | HOME | EVENTS | SEARCH | MY ACCOUNT

Events > New Event

1 | Add Event Details | 2 | Add Hotwash | 3 | Add Improvement Plan / After Action Report

Name ⓘ
Insert the formal name of event. See naming convention recommendations.

Start date

End date

Event type

Participating States Specify by state and/or federal
Indicate which states/territories were involved in the event. If federal agencies were involved, select 'Federal'

Core capabilities **Core Capability** [List with descriptions](#)
 Select...

Threat or Hazard Select at least one Threat or Hazard

Scenario

Follow steps 1-3 to create an Event in AAX

1. Add Event Details

- Adding event details includes information such as the event name, start and end dates, and event types. This tab also includes Core capabilities.
- You may not proceed to subsequent steps until all required items are complete. Any required items will be identified with an asterisk.

NOTE: There is additional information located within the web form. Click on “See naming convention recommendations” to pull up additional information about how to name an event.

AFTER ACTION EXCHANGE HOME | EVENTS | SEA

Events > -30 F Test > Edit Event

1 | Add Event Details | 2 | Add Hotwash | 3 | Add Improvement Plan / After Action Report

* Name: Tabletop Exercise - TEST [See naming convention recommendations.](#)

Start date: January 29, 2019

End date: January 29, 2019

* Event type: Natural disaster

Participating States: Specify by state and/or federal

Indicate which states/territories were involved in the event. If federal agencies were involved, select 'Federal'

Event Name Convention Recommendations

- **Outbreak or Contamination without Illnesses:** Agency or RRT name submitting AAR/pathogen/vehicle (with status [suspect/confirmed], if known)/month-year of incident start.
- **Non-Outbreak Event (Natural Disaster, Exercise):** Agency or RRT name submitting AAR/Event Name/month-year of event start

NOTE: For additional information on Core Capabilities you may click “List with descriptions” to pull up a screen that displays details on available Core Capabilities.

AFTER ACTION EXCHANGE HOME | EVENTS | SEARCH | MY ACCOUNT

Participating States: Specify by state and/or federal

Indicate which states/territories were involved in the event. If federal agencies were involved, select 'Federal'

* Core capabilities: Core Capability [List with descriptions](#)

Select... Remove

Add another row

Threat or Hazard: Deployment of SNS Asset - Pandemic Influenza

Scenario

Insert a brief overview of the event, including scenario impacts (2-3 sentences)

A pop-up screen will be displayed. Click “Close” in the upper right to exit this screen.

Core Capabilities

Emergency Operations Coordination	This includes the ability to organize, manage, and coordinate a public health incident (potentially among multiple agencies) using ICS or another standardized, scalable system.
Emergency Public Information and Warning	This includes the ability of public health and regulatory officials to develop, coordinate, and disseminate information to the public, such as recall notifications, consumer advisories, boil water notices, safety alerts, and other notifications. This also includes the ability to respond to requests and inquiries from the public/media regarding incidents of public health significance.
Environmental Investigation Activities	This includes the ability to recommend and implement strategies for illness prevention. Activities to assess include control measures implemented (embargo, recall, seizure, stop sale, facility closure, etc), on-site facility investigations (inspections and/or environmental assessments), and traceback/traceforward, as applicable.
Information Sharing	This includes the ability of public health and regulatory officials to share information within an agency and with external agencies for the purposes of situational awareness, preparation, notification and response to incidents of public health significance (as applicable).
Laboratory Testing	This includes the ability to conduct, coordinate, and/or report results of laboratory testing associated with a potential public health incident. This may include analyses for microbiological, chemical, or other (all-hazards) contamination in multiple matrices, including: clinical specimens, food/feed products, environmental (water, swabs, soil, animal feces), and animal tissue.
Medical Countermeasure Dispensing	This includes the ability to provide medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with public health guidelines and/or recommendations.

- You may enter in your own hazard/threat **or** select from a prepopulated list within the dropdown menu
- For Event Point of Contact you may select from a list from the dropdown menu

Threat or Hazard

Scenario

Insert a brief overview of the event, including scenario impacts (2-3 sentences)

Event Sponsor/Lead Agency for Incident Coordination

Insert the name of the sponsor organization, as well as any grant programs being utilized, if applicable

Event Point of Contact(s)

Indicates Primary POC. Drag and sort a POC to the first of the list to designate primary POC.
 Recommend limiting selections to 1-2 persons, selecting those who are most appropriate to answer questions about the event.
 NOTE: Selecting additional POCs beyond yourself (as the event creator), will grant those POCs edit/write access to this event, provided they have a 'Data Entry' level account.
 If you wish to grant someone edit/write access to this event and they do not have a 'Data Entry' level account, please email nels7581@umn.edu.

[Save and View Event Summary](#) [Save and Continue](#) [Back to Events](#)

- Once all required information has been entered you may click “Save and Continue” to proceed to step 2.

2. Add Hotwash

- The “Customize Survey” feature is located here. Click the orange button to create a customized survey
- The on screen survey instructions in the blue box provide additional information
- At least one participant must be specified in order to send out a survey. Participant email addresses may be typed in manually. If the user is not already in the database they will only need an email address. If you have a large list you may copy and paste user emails separated by a comma.

The screenshot shows the 'AFTER ACTION EXCHANGE' web application interface. At the top, there is a navigation bar with 'HOME', 'EVENTS', 'SEARCH', and 'MY ACCOUNT' links. Below this is a blue header bar with a white arrow pointing right. Underneath the header is a grey navigation bar with three tabs: 'Add Event Details', '2 | Add Hotwash', and '3 | Add Improvement Plan / After Action Report'. The 'Add Hotwash' tab is highlighted with a yellow border.

The main content area is titled 'Hotwash'. It contains a 'Participants' section with a text input field labeled 'Select participants'. Below this field is a note: 'Each participant will need an email address. If the user isn't already in the database please enter an email address only' and a tip: 'Tip: You can paste a large selection of users email addresses formatted as a comma or semi-colon delimited list.'

Below the participants section is a dropdown menu for 'Make hotwash survey anonymous?' with 'No' selected. A note below the dropdown states: 'Once the survey is sent you cannot change this setting.'

At the bottom of the form are five buttons: 'Customize Survey' (highlighted with an orange border), 'Save and View Event Summary', 'Save and Continue', 'Previous', and 'Back to Events'.

Below the buttons is a light blue box titled 'Survey Instructions' containing the following text: 'After you customize the survey and specify recipients/participants go to the [Event Summary](#) and click "Send Survey" button. Note: Once you begin to customize the survey, changing Core Capabilities will require that you reset the survey and lose any information you have customized. If you must change any Core Capabilities: (1) go back to the "Add Event Details" tab and add/remove Core Capabilities as needed; and (2) click on [Reset to Default](#) to incorporate changes into the survey template. If applicable, you may wish to first go into the customized survey and copy any custom text or questions you created to use as reference.'

- Clicking the orange “Customize Survey” button will pull up a screen that will allow you to customize a hotwash survey as seen below

Back to Event

Preview Survey
Instructions

After Action Review

You have been invited to complete this hotwash survey due to your involvement in this response. Feedback is valuable and will be used to improve future responses. Thank you for your participation!

Please complete sections of the survey below as applicable to your involvement in the response.

Toolbox

H Header Text

A Label

¶ Paragraph

— Line Break

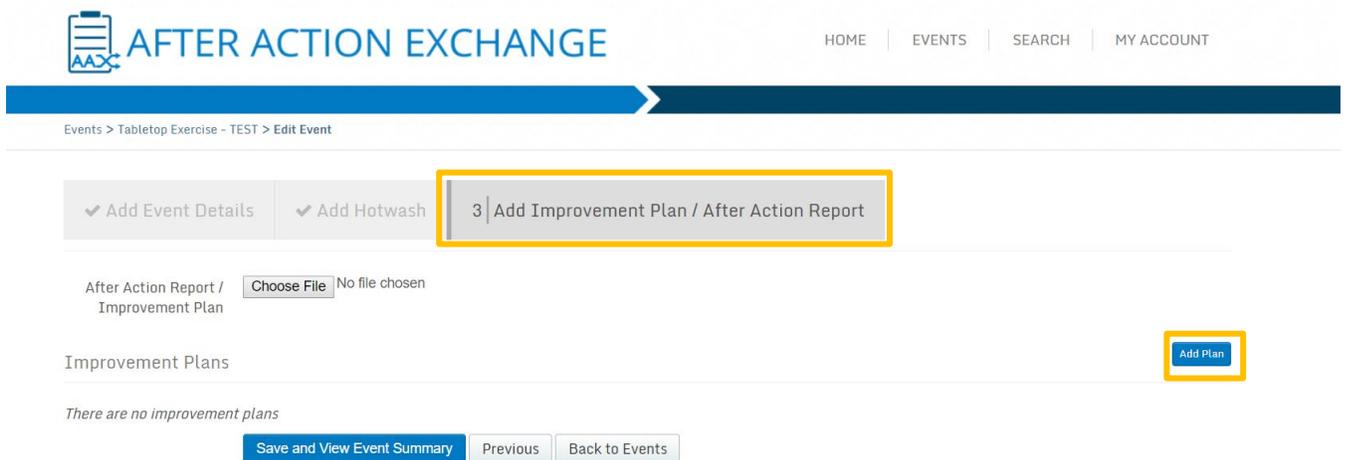
☑ Dropdown

🔖 Tags

- “Back To Event” – Clicking this button takes you to the previous screen
- “Instructions” – clicking this button will provide instructions on how to create a survey
- “Preview Survey” will display the survey as it will be shown to participants
- Click “Save and Continue” to proceed to step 3.

3. Add Improvement Plan / After Action Report

- On step 3 you may attach an AAR from your local computer



The screenshot shows the 'Edit Event' page with three tabs: 'Add Event Details', 'Add Hotwash', and '3 | Add Improvement Plan / After Action Report' (highlighted with an orange border). Below the tabs, there is a file upload section for 'After Action Report / Improvement Plan' with a 'Choose File' button and the text 'No file chosen'. An 'Add Plan' button (highlighted with a blue border) is located on the right. At the bottom, there are three buttons: 'Save and View Event Summary' (highlighted with a blue border), 'Previous', and 'Back to Events'.

- You may add an improvement plan by clicking the blue “Add Plan” button
- Click “Save and View Event Summary” to return to event summary screen

4. Event Summary Screen

- The Event Summary Screen provides an overview of information that was entered during the previous steps. This screen also allows you to send a survey via the “Send Survey” button.



Tabletop Exercise - TEST

Edit Event Delete Event

Event Dates	January 29, 2019 0001 to January 29, 2019 2359
Scope	This exercise is a(n) natural disaster, planned for 23 hours and 58 minutes at <i>[location not specified]</i> .
Core Capabilities	Preparedness
Threat or Hazard	Natural weather event
Scenario	<i>Not available</i>
Sponsor	Food Protection and Defense Institute
AAR / IP	<i>No after action report / improvement plan available</i>

Hotwash & Participant Feedback Summary

Send Survey

The survey has not yet been sent out

Improvement Plans

Add Plan

There are no improvement plans

Note: once a survey is sent additional information will be displayed under “Hotwash & Participant Feedback Summary”. The information includes the total number of surveys sent, the total number of completed the survey, and the number of surveys that have not been completed.

Hotwash & Participant Feedback Summary

Develop Hotwash Send Survey

Participants: 4 Completed: 0 Pending: 4 Unsent: 0

How to Create a Survey

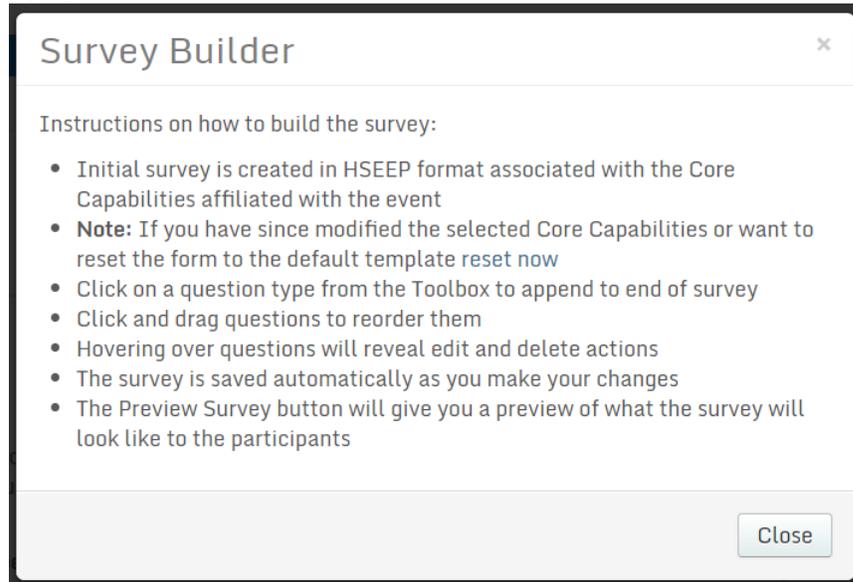
1. A survey can be created on “Step 2 – Add Hotwash”. Begin by clicking “Customize Survey” as shown below:

The screenshot shows the AFTER ACTION EXCHANGE web application interface. At the top, there is a navigation bar with the logo and the text "AFTER ACTION EXCHANGE". To the right of the logo are links for "HOME", "EVENTS", "SEARCH", and "MY ACCOUNT". Below the navigation bar is a breadcrumb trail: "Events > Tabletop Exercise - TEST > Edit Event". The main content area features a horizontal menu with three items: "Add Event Details", "2 | Add Hotwash", and "3 | Add Improvement Plan / After Action Report". The "2 | Add Hotwash" item is highlighted with a yellow box. Below this menu is a section titled "Hotwash". Under "Hotwash", there is a "Participants" section with a text input field labeled "Select participants". Below the input field is a note: "Each participant will need an email address. If the user isn't already in the database please enter an email address only. Tip: You can paste a large selection of users email addresses formatted as a comma or semi-colon delimited list." Below the note is a question: "Make hotwash survey anonymous?" with a "NO" response and a note: "Survey has been sent and this setting is locked." At the bottom of the "Hotwash" section is a row of buttons: "Customize Survey", "Save and View Event Summary", "Save and Continue", "Previous", and "Back to Events". The "Customize Survey" button is highlighted with a yellow box.

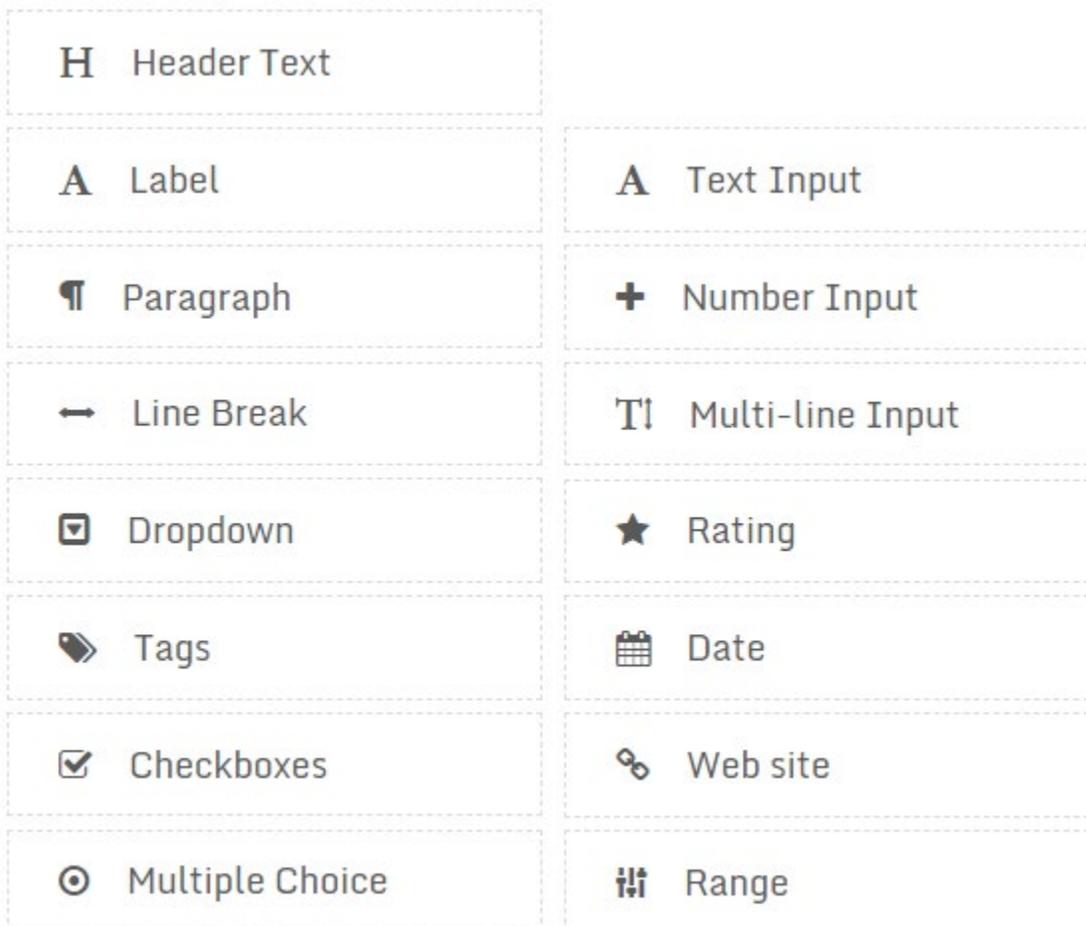
2. This will take you to the following screen:

The screenshot shows the Survey Builder web application interface. At the top, there is a navigation bar with the breadcrumb trail: "Events > Tabletop Exercise - TEST > Survey Builder". Below the navigation bar is a horizontal menu with two items: "Preview Survey" and "Instructions". The "Instructions" item is highlighted with a yellow box. Below the menu is a section titled "After Action Review". The text in this section reads: "You have been invited to complete this hotwash survey due to your involvement in this response. Feedback is valuable and will be used to improve future responses. Thank you for your participation!" Below this text is a note: "Please complete sections of the survey below as applicable to your involvement in the response." To the right of the "After Action Review" section is a "Toolbox" with four items: "H Header Text", "A Label", "¶ Paragraph", and "— Line Break".

For detailed on Instructions you may click the “Instructions” box located within this screen. This dialogue box will display:



Additionally, there are multiple tools available for use when customizing the survey:



3. To see how the survey will be presented to participants, click “Preview Survey”

Events > Tabletop Exercise - TEST > Survey Builder

[Back to Event](#) [Preview Survey](#) [Instructions](#)

After Action Review

You have been invited to complete this hotwash survey due to your involvement in this response. Feedback is valuable and will be used to improve future responses. Thank you for your participation!

Please complete sections of the survey below as applicable to your involvement in the response.

Toolbox

- H Header Text
- A Label
- ¶ Paragraph
- ↵ Line Break
- ☑ Dropdown

Once you are done previewing the survey you may return to the survey builder at any time by selecting “Back to Survey Builder”.



HOME | EVENTS | SEARCH | MY ACCOUNT

Events > Tabletop Exercise - TEST > Survey Preview

[Back to Survey Builder](#)

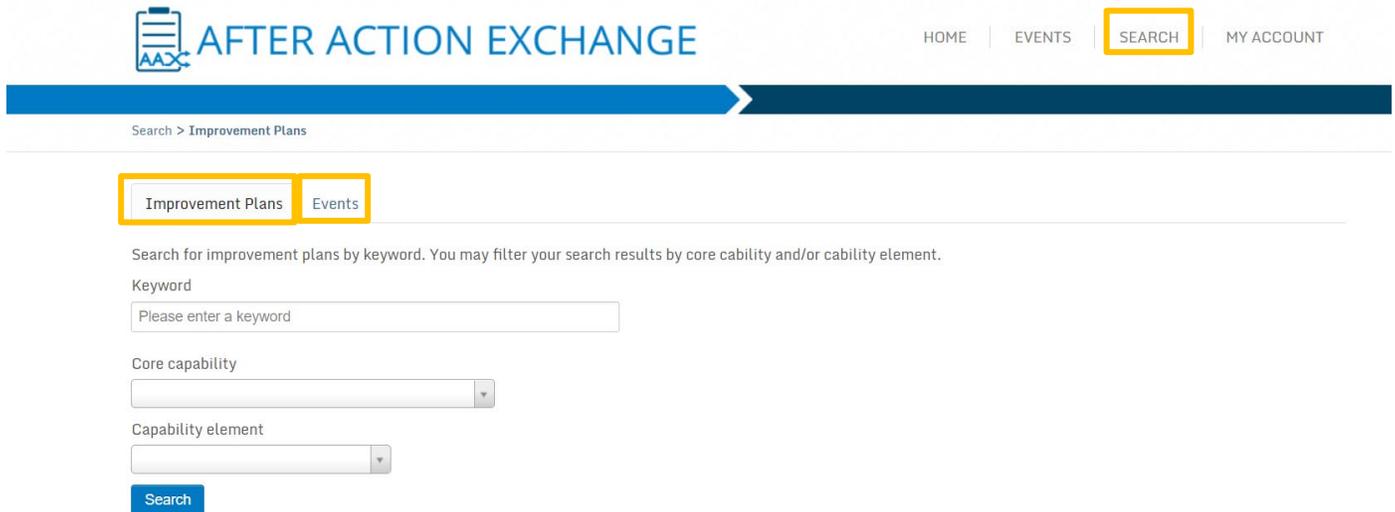
After Action Review

You have been invited to complete this hotwash survey due to your involvement in this response. Feedback is valuable and will be used to improve future responses. Thank you for your participation!

Please complete sections of the survey below as applicable to your involvement in the response.

How to Search for Events and Improvement Plans

1. Click “Search” in the toolbar at the top of the page:



Search > Improvement Plans

Improvement Plans Events

Search for improvement plans by keyword. You may filter your search results by core capability and/or capability element.

Keyword

Please enter a keyword

Core capability

Capability element

Search

2. Click either “Improvement Plans” or “Events” to search.

20.88 Agreements

“Chapter 21 of the Code of Federal Regulations (CFR) 20.88 allows FDA to share certain non-public information with state and local government officials.”¹ A listing of active 20.88 agreements is maintained by FDA, published online², and made downloadable in the form of a spreadsheet. The fields included in the database include state abbreviation, type of agency, type of 20.88 agreement, agency name, title of signatory, and name of signatory. FoodSHIELD and AAX are only concerned with agreements of type “Food and Feed.”

Capturing and Storing

FoodSHIELD serves as a system of record for people and organizations within FDA and their partner organizations. Leveraging that previously established organizational structure, the AAX application will rely on FoodSHIELD for user, organization and data sharing authorizations.

When FDA publishes the 20.88 database, FoodSHIELD will import that data and match agencies to organizations in FoodSHIELD. Those organizations will have (or be allowed) to add members that will then inherit the data sharing agreement rights. FoodSHIELD will then publish a list of Organizations, Users and data sharing Agreements to a secure endpoint consumable by AAX and any other future integrations deemed appropriate. This list of users assigned to organizations with 20.88 agreements is unique to FoodSHIELD and not otherwise maintained by FDA.

¹ What are information sharing / 20.88 agreements:

<https://www.fda.gov/ForFederalStateandLocalOfficials/CommunicationsOutreach/ucm472936.htm>

² 20.88 Agreement Database:

<https://www.accessdata.fda.gov/scripts/sda/sdNavigation.cfm?sd=singlesignaturefood>

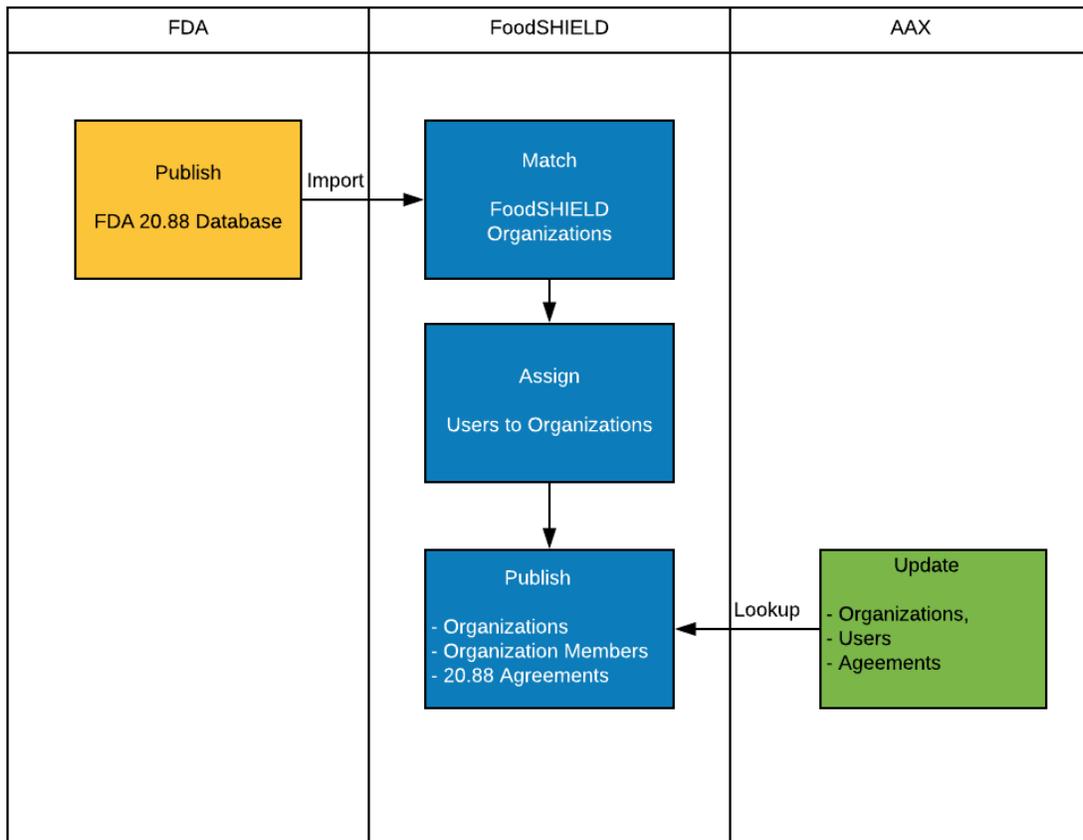


Figure 2: Integration Roles

Agency names published in the 20.88 agreement database may not necessarily align with names in FoodSHIELD, so FoodSHIELD must match the agency names in the spreadsheet to an organization in FoodSHIELD. Mismatches will require a manual intervention upon any change to the spreadsheet. Once agreements are captured, a list of organizations, 20.88s and users belonging to those organizations will be made available through a secure API endpoint, which AAX can connect to update resource data stored in AAX.

The AAX application may lookup organization information, organization users, and 20.88 agreements from FoodSHIELD on a scheduled interval, or on certain events (such as new user creation or access, or log in).

In addition to demographic information on these resources, 20.88³ data sharing agreements issued by FDA are assigned to individual users in FoodSHIELD.

³ FDA - 20.88: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=20.88>

Download of data and assignment of users to agencies with 20.88s

- 1) FoodSHIELD will download organization and agreement data from FDA nightly.
- 2) Data will then be checked for updates.
 - Updates may include adding a new organization, or removal of an agency.
 - Signatory data and changes will be ignored.

IF there are updates:

- 3) FDA data will be loaded into FoodSHIELD holding tables
- 4) Changed data (added or removed agencies) will be compared to FoodSHIELD organizations by an exact text match.

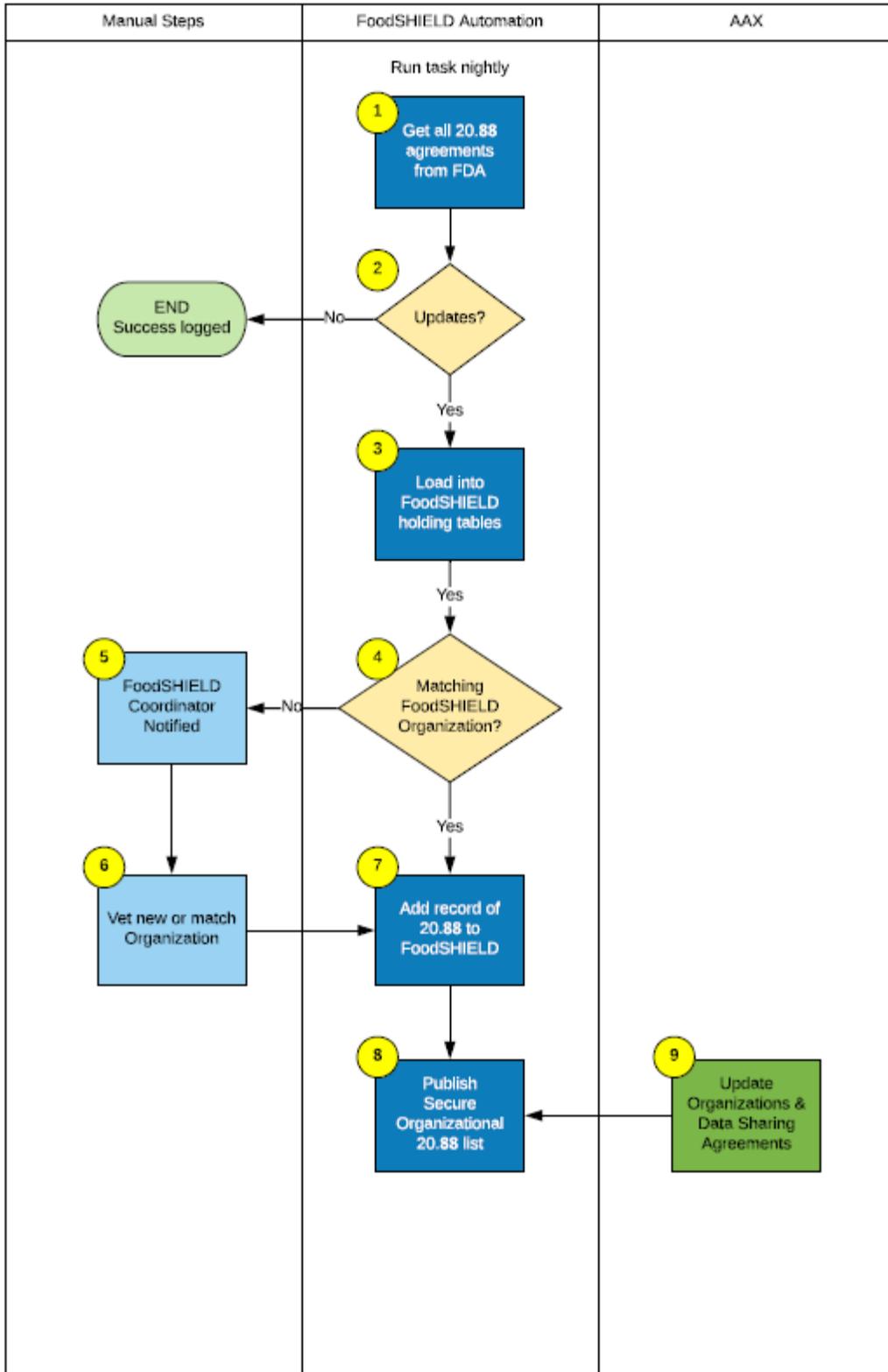
IF an exact text match can **NOT** be made

- 5) The FoodSHIELD Coordinator will be notified to to reconcile the discrepancy
- 6) Discrepancies will be addressed by:
 - Adding a new organization
 - OR
 - Mapping an agency derivative in spelling to a FoodSHIELD organization

Any questions will be directed to the AAX App owner in FoodSHIELD.

Once the discrepancies are resolved, or if the system is able to make a direct match automatically:

- 7) A record of the 20.88 will be recorded in FoodSHIELD.
- 8) FoodSHIELD will publish a list of organizations with 20.88 agreements and all of their members to a secure endpoint made consumable by authorized applications such as AAX.
- 9) AAX will then finally check FoodSHIELD for updates to its users or organizations nightly.



- 1 FoodSHIELD will download Agency and Agreement data from the FDA Website (nightly)
- 20.88 Single-Signature Agreements: <https://www.accessdata.fda.gov/scripts/sda/sdNavigation.cfm?sd=singlesignaturefood>
- 2 Data will be:
 - a) Checked for updates
- Updates include: Adding a new organization, or removal of an agency. Signatories/users will be ignored
 - b) Staged for comparison in holding tables
 - c) Compared with FoodSHIELD Users and Organizations
- 3 IF there are new organizations, or organizations added that don't match FoodSHIELD, the FoodSHIELD coordinator will be notified to add or merge.
- 4 The FoodSHIELD coordinator will review new or pending agencies daily. Approval will put agency 20.88 in approved status for the FoodSHIELD resource list.
- 5 Once the resources are reviewed and vetted, a FoodSHIELD API endpoint with organizations and 20.88's and unique id's will be made available for integration (e.g. AAX) using FoodSHIELD as the System of Record.
- 6 AAX will check 20.88s nightly and sync the organization list in AAX with the organization and 20.88 list in FoodSHIELD.

Record Sharing

The organizational record sharing was developed primarily for FDA as a way to facilitate sharing of certain event data (i.e., the full AAR/IP report – uploaded as an attachment to the event in AAX) with a restricted group of users (i.e., FDA and agencies with current 20.88 agreements).

FDA project sponsors with their partners in state and local governments (AAX stakeholders) identified a need to restrict sharing of full AAR/IP reports that may contain non-public information obtained from FDA to users with appropriate information sharing agreements (i.e., 20.88 agreements). Furthermore, AAX stakeholders determined that state and local governments might have a similar desire to restrict sharing of full AAR/IP reports to this same audience, as agencies with a 20.88 agreement possess the necessary capability to protect non-public information received in the course of conducting agency business. For example, if the Mississippi Department of Health (MSDH) and the Rhode Island Department of Health (RIDH) both have 20.88 agreements with FDA, MSDH can share event data with FDA and RIDH. This would be implemented as such:

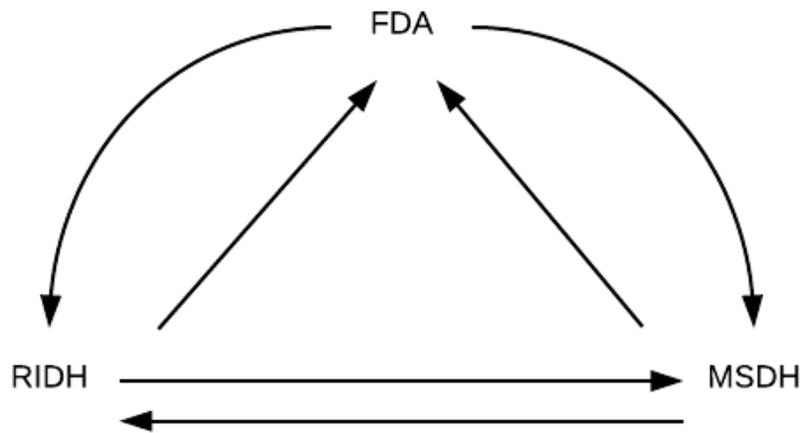


Figure #: Flow of data sharing agreements

In this scenario, an event created by FDA, or events created by the other partner agencies would be visible by all parties involved with ownership and distribution rights being retained by the record creator.