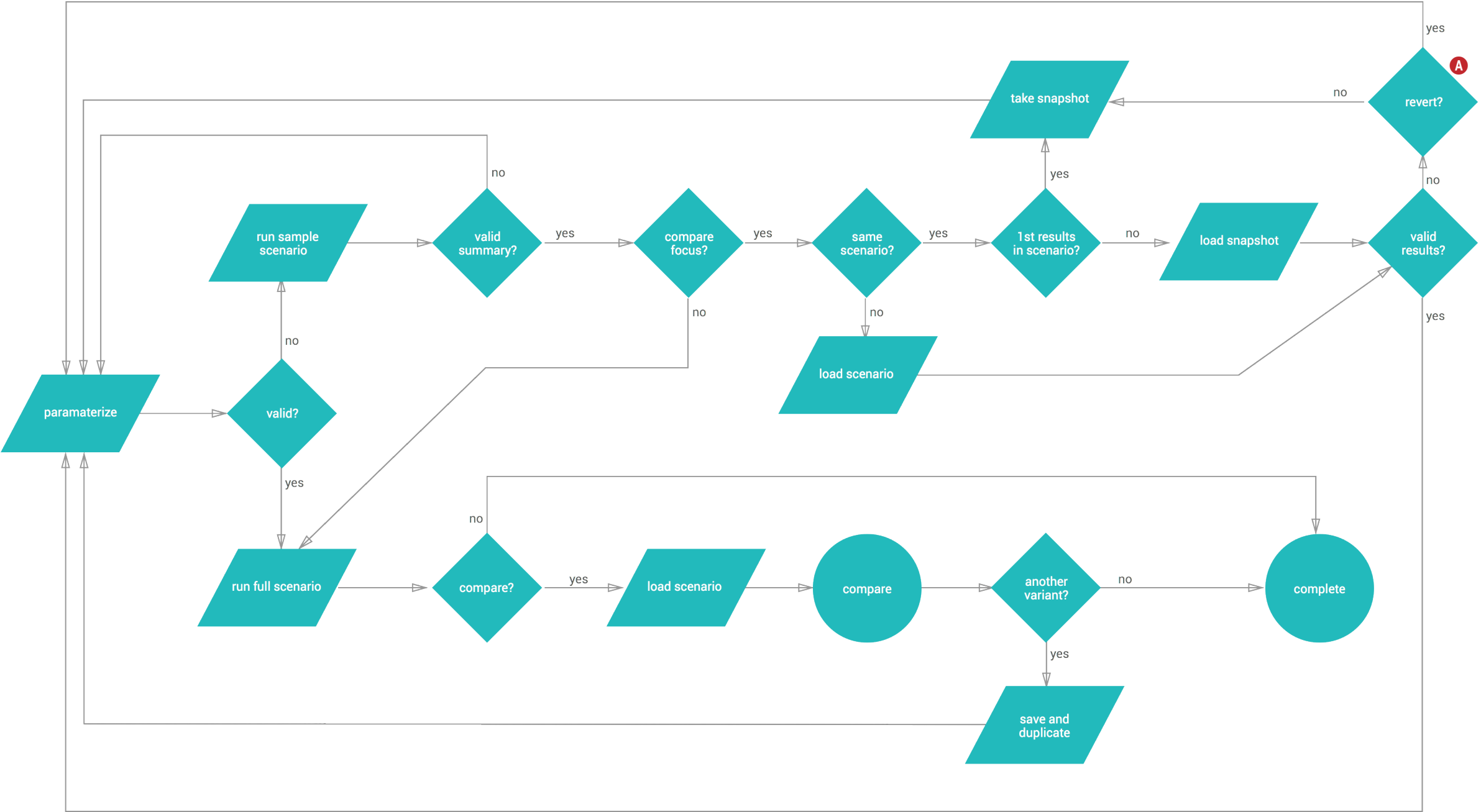## Comparison Overview

The compare interface has been designed to facilitate two different primary goals within the ADSM application:

1. **Comparing results of full-run (many iterations) simulation variants** - This is a typical use case for the application wherein an Economist or Epidemiologist wants to examine how different control scenarios effect the trajectory of an outbreak and the associated costs. When conducting work of this nature, the user will typically create a base scenario, then duplicate that scenario and make adjustments to discrete input parameters of the duplicate to create a "variant." The variants are then compared to the base scenario and to each other. Such comparisons can be considered "scenario variant comparisons."

2. **Validating input parameters within a single scenario -** For new users and individuals training others to use the application, the ability to quickly compare the effect that changing an input parameter produces on specific results data is an effective way to understand relationships between inputs and results in the ADSM application. For example, a user may not fully understand how zones effect vaccination rates. The user may runs a small-iteration sample-scenario with one set of zone parameters, then tweak those parameters and run another sample scenario. By comparing the results of the two different parameterizations, she can clearly see how the input effects the results. These discrete comparisons are for the user's edification rather than a step in a research effort. The usefulness of the comparison is transient. There is little value in maintaining a stand-alone pairing of the input parameters and  the constituent results as the purpose of the comparison is idiosyncratic. Such comparisons can be considered "results snapshot comparisons."

The workflow diagram explores user paths for both "scenario variant comparisons," and "results snapshot comparisons" per the interaction and interface specifications in the following pages

Ⓐ There is one consideration in the workflow diagram that is not accounted for in the UI spec - the option to revert input parameters based on a snapshot state. While the potential benefit of this interaction is apparent, the cost to implement this single feature at this time seems untenable. If projects and variants are ever implemented, the same logic and code-base can likely be used to implement this feature. In the meantime, a user can utilize the "notes" field that accompanies a snapshot to describe the changes made to inputs, then reapply parameterization per the notes if she wishes to revert to an earlier state.

## Defining Results Set for Comparison

The comparison feature revolves around the idea that each user is interested in a small subset of the overall application results data set. As such, the first step in conducting a comparison is defining the specific results subset to be compared.

**A** Results fields in the Comparison Setup are grouped into the same subsets as they are in the Results Navigation. By default, each group is toggled closed. Clicking on a group heading toggles the container state.

**B** When no selections have been mad, this interaction prompt follows the section header

**C** Following the group heading is useful information about the contents of the group - the number of fields in the group and how many of those fields have been selected for comparison.

**D** Showing the Vaccinations group toggled open

**E** The fields list should be rendered in columns of 5 fields with a 24px line-height, and 30px right margin. The width of the container should extend to 20px left of the toolbar, have an inset drop shadow on the left and right sides, and a 1px border #ebebeb. Ideally, scrolling with the mouse wheel while over the container will cause the contents to scroll right to left.

---

**ADSM** Animal Disease Spread Model

**SampleScenario**

Scenario Description

Population

Disease

   Disease Progression

   Disease Spread

   Assign Disease Spread

Controls   **on**

   Vaccination Triggers

   Control Protocol

   Assign Protocols

   Zones

   Zone Effects

**Output Settings**

**Validate Scenario** ▶

### Edit the Output Settings

Iterations*

`10`

Stop criteria*

`Stop when there are no more latent or infectious ▼`

#### Cost Tracking

☑ **Cost track destruction**

☑ **Cost track vaccination**

☑ **Cost track zone surveillance**

#### Supplemental Outputs

☑ **Save daily unit states**

☐ **Save daily events**

☐ **Save daily exposures**

☐ **Save map output**

### Results Comparison Setup

**B** Select a subset of model results for comparison against other files or same-scenario paramterization snapshots

▸ **Exposures** | 16 Fields, 0 Selected **C**

▸ **Infections** | 20 Fields, 0 Selected

▸ **Detections** | 15 Fields, 0 Selected

**D** ▾ **Vaccinations** | 23 Fields, 0 Selected

   ☐ Vaccination Cummulative Units for Any Reason   ☐ Vaccinations New Units Because of Ring   ☐ Vaccination Wait Time Units
   ☐ Vaccination Cumulative Units Because of Ring   ☐ Vaccinations New Animals for Any Reason   ☐ Vaccination Wait Time Units
   ☐ Vaccination Cumulative Animals for Any Reason   ☐ Vaccinations  New Animals Because of Ring   ☐ Vaccination Wait Time Units
   ☐ Vaccination Cumulative Animals Because of Ring   ☐ Vaccination Wait Time Units for Any Reason   ☐ Vaccination Wait time Anim
   ☐ Vaccination New Units for Any Reason   ☐ Vaccination Wait Time Units Max   ☐ Vaccination Wait Time Anim

▸ **Destruction** | 34 Fields, 0 Selected

▸ **Exams** | 28 Fields, 0 Selected

▸ **Lab Tests** | 23 Fields, 0 Selected

▸ **Tracing** | 24 Fields, 0 Selected

▸ **Zones** | 6 Fields, 0 Selected

▸ **Control Activity** | 32 Fields, 0 Selected

## Defining Results Set for Comparison (continued)

**A** Once the user has added fields to the Comparison Setup, the interaction prompt is replaced by a section sub-header

**B** Selected Comparison Fields - when the user clicks on a field in a results group, that field is added to the Selected Comparisons Fields section. The list should be divided into two balanced columns. Fields can be removed from the Selected Comparison Fields list by either clicking on the adjacent checkbox in the list, or un-checking the field in the full grouped fields list

**ADSM** Animal Disease Spread Model

**SampleScenario**

Scenario Description

Population

Disease

    Disease Progression

    Disease Spread

    Assign Disease Spread

Controls  `on`

    Vaccination Triggers

    Control Protocol

    Assign Protocols

    Zones

    Zone Effects

**Output Settings**

**Validate Scenario** ▶

### Edit the Output Settings

**Iterations***

`10`

**Stop criteria***

`Stop when there are no more latent or infectious`  ▼

### Cost Tracking

☑ **Cost track destruction**

☑ **Cost track vaccination**

☑ **Cost track zone surveillance**

### Supplemental Outputs

☑ **Save daily unit states**

☐ **Save daily events**

☐ **Save daily exposures**

☐ **Save map output**

### Results Comparison Setup

**A** Selected Results Fields

☑ Outbreak Duration    ☑ Euthanasia Cost

☑ Destructions Occurred    ☑ Indemnification Cost

☑ Vaccinations Occurred    ☑ Carcass Disposal Cost

☑ Survelliance Cost    ☑ Cleaning and Disinfection Cost

☑ Vaccination Cost    ☑ Total Cost

☑ Appraisal Cost

**B**

▸ **Exposures** | 16 Fields, 0 Selected

▸ **Infections** | 20 Fields, 0 Selected

▸ **Detections** | 15 Fields, 0 Selected

▸ **Vaccinations** | 23 Fields, 1 Selected

▸ **Destruction** | 34 Fields, 1 Selected

▸ **Exams** | 28 Fields, 0 Selected

▸ **Lab Tests** | 23 Fields, 0 Selected

▸ **Tracing** | 24 Fields, 0 Selected

▸ **Zones** | 6 Fields, 0 Selected

▸ **Control Activity** | 32 Fields, 8 Selected

3

## Results Home - Summary Information

The Summary section of the Results Home page consists of the results map and a select group of general results fields. These data can be made more useful by allowing the user some limited degree of manipulation...

**A** Median toggle - clicking the text produces a drop-down from which the use can select *Median, 5th Percentile, or 95th percentile*. Upon making a selection, the drop-down menu retracts and both the map and the tabular data are refreshed accordingly.

**B** Production Type toggle - functions in the same manner as the Median toggle, but the user can select to isolate results for a single production type

**C** The results map is in need of a title

**D** Map Zoom Bar - zooming on the results map is accomplished by clicking-and-dragging the slider up and down, or by clicking the "+" and "-" buttons. Scroll zooming should be disabled. By default, the control is rendered at 50% opacity, increasing to 100% on hover.

**E** Results Comparison section - the header of the results comparison section should fall above "the fold" the majority of the time so that the user is aware of more content below the Summary Section.

---

**ADSM** Animal Disease Spread Model

## Sample Scenario with Outputs

**Results Home**

**A** *Median* ▾ results of 50 iterations. Showing *all production types* ▾ **B**

### Production Type

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

### Zone + Production Type

### Zones

### Control Activity

There needs to be a map title here **C**

**D**

Zone Probability | Unit Outcome
100% | 🟥 Infected
 | 🟩 Vaccinated
>1% | ⬛ Destroyed

◀ Back to Inputs

**E** Results Comparison

### Unit (Animal) Summary

| Median Infected Units (Animals) | 36 (12546) |
| Median Units (Animals) Infected at First Detection | 7 (1438) |
| Median Depopulated Units (Animals) | 29 (10733) |
| Median Vaccinated Units (Animals) | 21 (7727) |

### Event Summary

| Median Outbreak Duration in Days (end of control activities) | 83 |
| Median Duration of Disease Spread in Days | 83 |
| Median Day of First Detection | 9 |
| Median Day of First Vaccination | 12 |
| Median Day of First Destruction | 15 |

### Zone Summary

| Median Total Area of High risk in km^2 | 3368.58 |
| Median Number of Distinct High risk Zones | 1 |
| Median Total Area of Medium risk in km^2 | 1337.02 |
| Median Number of Distinct Medium risk Zones | 1 |

**Results Home - Summary Information (continued)**

The styling of the summary drop-down menus is show here.

**ADSM** Animal Disease Spread Model

## Sample Scenario with Outputs

**Results Home**

**Production Type**

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

**Zone + Production Type**

**Zones**

**Control Activity**

◀ **Back to Inputs**

_Median_ ▾ results of 50 iterations. Showing  [ _all production types_  ▾ ]

all production types
Cattle Type 1
Cattle Type 2
Cattle Type 3
Cattle Type 4
Cattle Type 5
Cattle Type 6
Cattle Type 7
Swine Type 1
Swine Type 2
Swine Type 4
Swine Type 5
Swine Type 6
Swine Type 7
Swine Type 8
Swine Type 9
Swine Type 10

There needs to be a map title here

Zone Probability | Unit Outcome
100% | ■ Infected
| ■ Vaccinated
>1% | ■ Destroyed

**Results Comparison**

**Unit (Animal) Summary**

| | |
|---|---|
| Median Infected Units (Animals) | 36 (12546) |
| Median Units (Animals) Infected at First Detection | 7 (1438) |
| Median Depopulated Units (Animals) | 29 (10733) |
| Median Vaccinated Units (Animals) | 21 (7727) |

**Event Summary**

| | |
|---|---|
| Median Outbreak Duration in Days (end of control activities) | 83 |
| Median Duration of Disease Spread in Days | 83 |
| Median Day of First Detection | 9 |
| Median Day of First Vaccination | 12 |
| Median Day of First Destruction | 15 |

**Zone Summary**

| | |
|---|---|
| Median Total Area of High risk in km^2 | 3368.58 |
| Median Number of Distinct High risk Zones | 1 |
| Median Total Area of Medium risk in km^2 | 1337.02 |
| Median Number of Distinct Medium risk Zones | 1 |

## Comparison Blank State

When a user has selected Comparison Fields in the Results Comparison Setup, she encounters the "blank state" view of the Comparison interface on her first visit. Data for the present scenario populates the "Current Scenario" section, while the comparison section contains only a "Source Selection" action link.

**A** Comparison Configuration section

**B** Production Type toggle - allows the user to focus in on a single production type in the comparison data. Clicking on a production type from the drop-down list immediately refreshes the data in the comparison sections.

**C** Calculated results selection - allows the user to switch the results data between median, 5th percentile, and 95th percentile. Selecting a different display immediately refreshes the data in the comparison sections

**D** Area for notes and prompts, if required

**E** Current Scenario Section

**F** Comparison Section

**G** Snapshot action link - see pg.10

**H** Save and Duplicate action link - see pg.11

**I** Re-run Scenario action link - see pg.12

**J** Source Selection action link - clicking triggers the opening of the file panel with custom styling specifically designed for the selection of either a Snapshot set of data, or a scenario file for comparison against the current scenario data (see pg 7)

---

**ADSM** Animal Disease Spread Model

## Sample Scenario with Outputs

**Results Home**

**Production Type**

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

**Zone + Production Type**

**Zones**

**Control Activity**

◀ **Back to Inputs**

>1%   Destroyed

Zones

## Results Comparison

Compare results for:

all production types ▼

Display:
- ● median results
- ○ 5th percentile
- ○ 95th percentile

*Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate*

### Current Scenario

50 iterations | run on 8/24/2015 at 4:15 PM

*Take Snapshot*  |  *Save and Duplicate Scenario*  |  *Re-run Scenario*

| | |
|---|---|
| Outbreak Duration | 300 days |
| Destructions Occurred | 15,280 |
| Vaccinations Occurred | 300,000 |
| Surveillance Cost | $200,500.00 |
| Vaccination Cost | $30,000.00 |
| Appraisal Cost | $10,000.00 |
| Euthanasia Cost | $200,500.00 |
| Indemnification Cost | $0.00 |
| Carcass Disposal Cost | $150,000.00 |
| Cleaning and Disinfection Cost | $78,300.00 |
| Total Cost | $2,350,117.00 |

*Select a source Snapshot or Scenario to compare*

## Comparison Source Selection

Upon clicking the Source Selection action link, the file panel opens with modified styling designed to focus the user in on the task of selecting a source data-set and providing the appropriate information to facilitate that selection.

All interactions other than the selection of a source file are hidden in the file panel including the ability to duplicate or delete scenario files, create a new scenario, or import a new scenario.

**A** Current Scenario Snapshot List - Any Snapshots associated with the currently opened file are listed here followed by the Snapshot Notes. Clicking on a Snapshot name closes the file panel and populates the comparison section with the appropriate data. *Notice how this imaginary user used the notes field for a quick description about what she changed between Snapshots.*

**B** Scenario list - clicking on a scenario title closes the file panel and loads the appropriate data into the comparison section.

**C** Cancel button - clicking closes the file panel without triggering any further interface changes.

*Note: The styling of the File Panel has been updated to better match broader changes in the UI. An updated spec for the File Panel in general will be produced, or the updates will be made directly to the CSS file.*

---

**ADSM** Animal Disease Spread Model

# Sample Scenario with Outputs

**Results Home**

**Production Type**

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

**Zone + Production Type**

**Zones**

**Control Activity**

◀ **Back to Inputs**

>1%    Destroyed

## Results Comparison

**Compare results for:**

all production types ▼

**Display:**

● median results

○ 5ᵗʰ percentile

○ 95ᵗʰ percentile

*Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate*

**Current Scenario**

50 iterations | run on 8/24/2015 at 4:15 PM

*Take Snapshot  |  Save and Duplicate Scenario  |  Re-run Scenario*

*Select a source*

| | |
|---|---|
| Outbreak Duration | 300 days |
| Destructions Occurred | 15,280 |
| Vaccinations Occurred | 300,000 |
| Surveillance Cost | $200,500.00 |
| Vaccination Cost | $30,000.00 |
| Appraisal Cost | $10,000.00 |
| Euthanasia Cost | $200,500.00 |
| Indemnification Cost | $0.00 |
| Carcass Disposal Cost | $150,000.00 |
| Cleaning and Disinfection Cost | $78,300.00 |
| Total Cost | $2,350,117.00 |

Zones

**Currently Open**

Mad Cow_Mississippi_2014

**Snap Shots**

*Mad Cow Mississippi_SS_1*
Notes: zone set to 30km

*Mad Cow Mississippi_SS_2*
Notes: zone set to 10km    **A**

*Mad Cow Mississippi_SS_3*
Notes: zone set to 200km

*Scenario XYZ_v2.4*
Notes: zone set to 5km

This file contains unsaved changes.  *Save changes?*

**Available Scenarios**

*Hoof and Mouth_2012_v1*
*Notes: Lorem ipsum dolor sit amet, consectetur adipiscing elit.*

*Hoof and Mouth 2012_v2*
**B**
*Notes: Sed pellentesque eros et leo ornare faucibus. Nam tempor sapien dolor, nec gravida velit lobortis vitae.*

*Neosporosis_midwest_2014*
*Notes: Vestibulum eget arcu eu nibh tincidunt facilisis. Fusce neque dolor, commodo at tempor ac, scelerisque sit amet ipsum.*

**C**  Cancel

## Display of Comparison Data

Here, the intended rendering of Current Scenario and Comparison data is shown.

Ⓐ Scenario run summary - shows how many iterations were run and the date of the run

Ⓑ If the comparison data comes from a Snapshot, it will be indicated next to the Snapshot name.

Ⓒ Snapshot notes are shown for user reference

Ⓓ Change Source action link - replaces the longer blank-state action link after data has been loaded into the comparison section. Clicking triggers the file panel interaction described on page 7.

**ADSM** Animal Disease Spread Model

## Sample Scenario with Outputs

>1% ▢ ▨ Destroyed

Zones

**Results Home**

**Production Type**

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

**Zone + Production Type**

**Zones**

**Control Activity**

◀ **Back to Inputs**

## Results Comparison

**Compare results for:**

all production types ▾

**Display:**
- ⦿ median results
- ○ 5th percentile
- ○ 95th percentile

*Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate*

**Current Scenario**

Ⓐ 50 iterations | run on 8/24/2015 at 4:15 PM ◀────────────▶

*Take Snapshot  |  Save and Duplicate Scenario  |  Re-run Scenario*

**Scenario XYZ v2.4 (snapshot)** Ⓑ

change source Ⓓ

500 iterations | run on 8/1/2015 at 3:27 PM

Notes: the user can input specific notes about this snapshot such as which Ⓒ parameters where changed and what the values were

| | Current Scenario | Scenario XYZ | |
|---|---|---|---|
| Outbreak Duration | 300 days | 150 days | Outbreak Duration |
| Destructions Occurred | 15,280 | 7,350 | Destructions Occurred |
| Vaccinations Occurred | 300,000 | 150,051 | Vaccinations Occurred |
| Surveillance Cost | $200,500.00 | $115,215.00 | Surveillance Cost |
| Vaccination Cost | $30,000.00 | $15,123.00 | Vaccination Cost |
| Appraisal Cost | $10,000.00 | $5,003.00 | Appraisal Cost |
| Euthanasia Cost | $200,500.00 | $100,250.00 | Euthanasia Cost |
| Indemnification Cost | $0.00 | $0.00 | Indemnification Cost |
| Carcass Disposal Cost | $150,000.00 | *untracked field* | Carcass Disposal Cost |
| Cleaning and Disinfection Cost | $78,300.00 | $23,560.07 | Cleaning and Disinfection Cost |
| Total Cost | $2,350,117.00 | $987,123.54 | Total Cost |

## Data Histograms in the Comparison UI

In the NAADSM application, a user can view data in the "Output Statistics" interface as a histogram. A user-survey should be conducted to determine if this is a useful and desirable feature. If so, histograms representing comparison data can be displayed in the manner shown here.

**(A)** Field selection - hovering over a row in either the Current Scenario section or the comparison section produces the pointer cursor and the typical hover styling for the entire row. Clicking on the row generates histograms as shown.

**(B)** Histogram header - Displays the title of the selected field from the above table

**(C)** Histogram options - if the ability to change the number of histogram bins is desired (as is allowed in NAADSM), controls for such selection can be laid out here as a list of radio-button options.

---

**ADSM** Animal Disease Spread Model

# Sample Scenario with Outputs

>1%     Destroyed

Zones

**Results Home**

**Production Type**

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

**Zone + Production Type**

**Zones**

**Control Activity**

## Results Comparison

**Compare results for:**

all production types ▾

**Display:**

◉ median results

○ 5th percentile

○ 95th percentile

*Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate*

**Current Scenario**

50 iterations | run on 8/24/2015 at 4:15 PM

*Take Snapshot  |  Save and Duplicate Scenario  |  Re-run Scenario*

**Scenario XYZ v2.4** (snapshot)          *change source*

500 iterations | run on 8/1/2015 at 3:27 PM

Notes: the user can input specific notes about this snapshot such as  which parameters where changed and what the values were

| | Current Scenario | | Scenario XYZ | |
|---|---|---|---|---|
| Outbreak Duration | 300 days | | 150 days | Outbreak Duration |
| Destructions Occurred | 15,280 | | 7,350 | Destructions Occurred |
| Vaccinations Occurred | 300,000 | **(A)** | 150,051 | Vaccinations Occurred |
| Surveillance Cost | $200,500.00 | | $115,215.00 | Surveillance Cost |
| Vaccination Cost | $30,000.00 | | $15,123.00 | Vaccination Cost |
| Appraisal Cost | $10,000.00 | | $5,003.00 | Appraisal Cost |
| Euthanasia Cost | $200,500.00 | | $100,250.00 | Euthanasia Cost |
| Indemnification Cost | $0.00 | | $0.00 | Indemnification Cost |
| Carcass Disposal Cost | $150,000.00 | | *untracked field* | Carcass Disposal Cost |
| Cleaning and Disinfection Cost | $78,300.00 | | $23,560.07 | Cleaning and Disinfection Cost |
| Total Cost | $2,350,117.00 | | $987,123.54 | Total Cost |

**(B)** Vaccinations Occurred

Histogram

Histogram

**(C)** *Histogram options*

◀ **Back to Inputs**

## Taking a Snapshot

Clicking on the "Snapshot" action link produces an interface mask over the primary UI and triggers the "Results Snapshot" modal interaction.

**(A)** Snapshot name - This field is pre-populated with the scenario name with the string "_SS*" appended (where "*" represents the most recent snapshot +1). The user can replace the default name with another name of their choice.

**(B)** Notes - multiline text box where the user can enter descriptive text about the Snapshot. Entries should be limited to 100 characters

**(C)** Cancel button - clicking closes the modal interaction without making any changes

**(D)** Save button - saves the Snapshot to the scenario file and closes the modal.

---

**ADSM** Animal Disease Spread Model

# Sample Scenario with Outputs

**Results Home**

Production Type

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

Zone + Production Type

Zones

Control Activity

◄ Back to Inputs

Zones

>1%       Destroyed

## Results Comparison

**Compare results for:**

all production types ▾

**Display:**
- ● median results
- ○ 5th percentile
- ○ 95th percentile

*Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate*

### Current Scenario

50 iterations | run on 8/24/2015 at 4:15 PM

*Take Snapshot  |  Save and Duplicate Scenario  |  Re-run Scenario*

### Scenario XYZ v2.4 (snapshot)    *change source*

500 iterations | run on 8/1/2015 at 3:27 PM

Notes: the user can input specific notes about this snapshot such as which parameters where changed and what the values were

| | | | |
|---|---|---|---|
| Outbreak Duration | | 150 days | Outbreak Duration |
| Destructions Occurred | | 7,350 | Destructions Occurred |
| Vaccinations Occurred | | 150,051 | Vaccinations Occurred |
| Surveillance Cost | | $115,215.00 | Surveillance Cost |
| Vaccination Cost | | $15,123.00 | Vaccination Cost |
| Appraisal Cost | | $5,003.00 | Appraisal Cost |
| Euthanasia Cost | | $100,250.00 | Euthanasia Cost |
| Indemnification Cost | | $0.00 | Indemnification Cost |
| Carcass Disposal Cost | $150,000.00 | *untracked field* | Carcass Disposal Cost |
| Cleaning and Disinfection Cost | $78,300.00 | $23,560.07 | Cleaning and Disinfection Cost |
| Total Cost | $2,350,117.00 | $987,123.54 | Total Cost |

**Results Snapshot**

**(A)** Name *

Sample Scenario with Outputs_SS1

**(B)** Notes

**(C)** Cancel      **(D)** Save

## New Scenario from Copy - Inline Interaction

Clicking on the "Save and Duplicate" action link produces an interface mask over the primary UI and triggers the "New Scenario From Copy" modal interaction. This facilitates a workflow in which the user wants to generate multiple variations of a scenario based on short-run comparisons of results data. Once she has configured the appropriate range of variations, she can then return to each to do larger-iteration runs.

**A** Scenario Name - text input field for the creation of a scenario name

**B** Variation Notes - text input field for a description of the scenario variant

**C** Copy Snapshot History control - if the user does not check this option, any snapshots associated with the scenario will be deleted from the newly duplicated scenario. The intent of this control is to prevent copious and ever increasing numbers of Snapshots from cluttering scenario files.

**D** Cancel button - clicking closes the modal interaction without creating any changes to the scenario

**E** Save button - clicking closes the modal interaction and the current scenario, then opens a duplicate with the new Scenario Name in the header. The new scenario should be opened to the Results Home interface.

---

**ADSM** Animal Disease Spread Model

## Sample Scenario with Outputs

**Results Home**

Production Type

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

Zone + Production Type

Zones

**Control Activity**

◄ **Back to Inputs**

>1%    Destroyed                                  Zones

### Results Comparison

Compare results for:

all production types ▾

Display:
- ● median results
- ○ 5ᵗʰ percentile
- ○ 95ᵗʰ percentile

*Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate*

**Current Scenario**

50 iterations | run on 8/24/2015 at 4:15 PM

*Take Snapshot*

Outbreak Durati

Destructions Occ

Vaccinations Occ

Surveillance Cost

Vaccination Cost

Appraisal Cost

Euthanasia Cost

Indemnification (

Carcass Disposal

Cleaning and Disinfection Cost    $78,300.00

Total Cost    $2,350,117.00

### New Scenario From Copy

**New Scenario Name***

**A** [                    ]

**Variation Notes**

**B** the notes attached to the scenario being copied pre-populate this area

**C** ☐ Copy Snapshot History

*Any pending changes to the current scenario will be preserved on save.*

**D** [ Cancel ]    **E** [ **Save** ]

**Scenario XYZ v2.4 (snapshot)**    *change source*

500 iterations | run on 8/1/2015 at 3:27 PM

Notes: the user can input specific notes about this snapshot such as which parameters where changed and what the values were

150 days    Outbreak Duration

7,350    Destructions Occurred

150,051    Vaccinations Occurred

$115,215.00    Surveillance Cost

$15,123.00    Vaccination Cost

$5,003.00    Appraisal Cost

$100,250.00    Euthanasia Cost

$0.00    Indemnification Cost

*untracked field*    Carcass Disposal Cost

$23,560.07    Cleaning and Disinfection Cost

$987,123.54    Total Cost

## Re-run Scenario - Inline interaction

This interaction offers the user a quick path to triggering a large-iteration run on a scenario after validating parameterization with the Results Summary and Comparison on a small-iteration test run. Clicking on the "Re-run Scenario" action link produces an interface mask over the primary UI and triggers the "Re-run Scenario" modal interaction.

**Ⓐ** Iteration quantity input - by default, the input shows the number if iterations from the last run. The user can replace this with the desired quantity.

**Ⓑ** Cancel button - clicking closes the modal interaction without creating any changes to the scenario

**Ⓒ** Run button - clicking closes the modal interaction, refreshes the Results Home page and starts a new simulation run of the scenario with the number of iterations entered in the modal interaction.

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**ADSM** Animal Disease Spread Model

## Sample Scenario with Outputs

Results Home

Production Type

Exposures

Infections

Detections

Vaccinations

Destruction

Exams

Lab Tests

Tracing

Zone + Production Type

Zones

Control Activity

◄ Back to Inputs

>1%       Destroyed

Zones

## Results Comparison

Compare results for:

all production types ▾

Display:
- ● median results
- ○ 5th percentile
- ○ 95th percentile

Some notes about the limitations of comparison: sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate

### Current Scenario
50 iterations | run on 8/24/2015 at 4:15 PM

Take Snapshot  |  Save and Duplicate Scenario  |  Re-run Scenario

Outbreak Durati...
Destructions Occ...
Vaccinations Occ...
Surveillance Cost
Vaccination Cost

| Appraisal Cost | $10,000.00 |
| Euthanasia Cost | $200,500.00 |
| Indemnification Cost | $0.00 |
| Carcass Disposal Cost | $150,000.00 |
| Cleaning and Disinfection Cost | $78,300.00 |
| Total Cost | $2,350,117.00 |

### Scenario XYZ v2.4 (snapshot)           change source
500 iterations | run on 8/1/2015 at 3:27 PM

Notes: the user can input specific notes about this snapshot such as  which parameters where changed and what the values were

| 150 days | Outbreak Duration... |
| 7,350 | Destructions Occurred |
| 150,051 | Vaccinations Occurred |
| $115,215.00 | Surveillance Cost |
| $15,123.00 | Vaccination Cost |
| $5,003.00 | Appraisal Cost |
| $100,250.00 | Euthanasia Cost |
| $0.00 | Indemnification Cost |
| untracked field | Carcass Disposal Cost |
| $23,560.07 | Cleaning and Disinfection Cost |
| $987,123.54 | Total Cost |

### Re-run Scenario

Run the current scenario with **Ⓐ** [ 10 ] iterations.

**Ⓑ** Cancel     **Ⓒ** Run

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