How should I select date ranges in MAVEN Reports?

When running a report in MAVEN, the most common (and important) parameter that you will need to set is what date range you would like to pull the cases for. While this seems straightforward, it is a bit trickier than it appears at first glance.

Different reports pull cases based on different date fields within MAVEN. Understanding which reports pull cases based on which date fields (and what those different dates fields mean) is integral to pulling a report that meets your needs.

What are the MAVEN date fields?

**Event Date**- Event date is a date field found within MAVEN cases that represents the ‘date of the infection’ for a given case. MAVEN selects the Event Date based on a hierarchy of possible dates available in a given case. Whichever date is completed and is highest on the hierarchy will by default become the cases Event Date. The hierarchy is as follows:

*Symptom Onset Date -> Earliest Specimen Date -> Diagnosis Date -> Create Date*

For example, if a case is missing Symptom Onset Date but the Earliest Specimen Date is available, Earliest Specimen Date will become the Event Date. If a case is later updated by a public health nurse with the Symptom Onset Date, the system will automatically substitute it in as the Event Date. The important take-home is that Event Date is not static-- it will change based on the date fields available within a given case.

**Symptom Onset Date**- The date of symptom onset as reported by the patient. Pulled from Clinical Question Package.

**Earliest Specimen Date**- The specimen date of the first lab populating the case (chronologically). This includes positive and negative results. Pulled from lab tab.

**Diagnosis Date**- Date of clinical diagnosis of the patient. Pulled from Clinical Question Package.

**Create Date**- Create date is the date the case was first created in MAVEN.

**First Positive Specimen Date**- Exactly what it says it is. If you go into the lab tab within MAVEN and see the different positive labs populating the table, the Earliest Positive Specimen Date corresponds to the specimen date of the first positive lab populating the table (chronologically).
What does any of this have to do with reports?

When a report is run in MAVEN and a date range is selected, the system decides which date field in MAVEN is being referenced for this range and it pulls cases accordingly. Different reports within MAVEN reference different date fields, which in turn impacts which cases get pulled into different reports. Running two different reports identically (selecting the same diseases, same classifications, same date ranges, etc.) will yield different results because the way the two reports are ‘interpreting’ the date range parameter is different.

So which date fields are being referenced in each report?

<table>
<thead>
<tr>
<th>MAVEN REPORT*</th>
<th>DATE FIELD IT REFERENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 LBOH Confirmed and Probable Case line list Report</td>
<td>First Positive Specimen Date</td>
</tr>
<tr>
<td>COVID-19 - line list of addresses with individual(s) under isolation for emergency responders CONFIDENTIAL</td>
<td>First Positive Specimen Date</td>
</tr>
<tr>
<td>LBOH Basic Line List</td>
<td>Event Date</td>
</tr>
<tr>
<td>LBOH Count - Events Per Disease and Classification in Jurisdiction</td>
<td>Event Date</td>
</tr>
<tr>
<td>LBOH Event Information Extract by Disease (Excel, CSV)</td>
<td>Event Date</td>
</tr>
</tbody>
</table>

*this only includes the most popular reports used in MAVEN. For questions regarding which date fields are used in other MAVEN reports, please contact isishelp@mass.gov

Things to keep in mind...

For anyone running reports based on Event Date, please be mindful that Event Date is a moving target. Most cases come in with a First Specimen Date (via the lab) which will automatically populate the Event Date field. However, as phone calls are made and the case is interviewed, Symptom Onset Date is often completed, which will in turn update the Event Date.

A case that populated your LBOH Basic Line List report one day may disappear from the same report the next day if its Event Date has updated and fallen out of the date range that you selected for that report.