

Outbreak Management in NC EDSS

Recognition of Outbreaks

Outbreaks may be first recognized by a variety of means. Local hospital emergency rooms may observe a number of similar cases, a Public Health Epidemiologist (PHE) at a regional hospital may recognize a pattern in NC DETECT, a Local Health Department (LHD) may receive reports from several sources which it determines are linked or a state Subject Matter Expert (SME) for a particular disease may notice a cluster of related laboratory results. Regardless of how the outbreak is first detected, it will be a combined effort of LHDs and state SMEs to document the event in NC EDSS and report their response

Creation of Outbreak Event

- LHDs who have detected a suspected outbreak should contact the appropriate state branch for the disease. The on call epidemiologist for CD or on call clinician for VPD will evaluate the telephone report from the LHD for outbreak creation. The on call person will provide assistance creating the outbreak in NC EDSS or pass the report to appropriate state Subject Matter Expert (SME) for the disease who will assist the LHD.
- SMEs within the CD or VPD branch may create statewide or national outbreaks as they are recognized without LHD action. LHDs will be able to see all active outbreaks entered into NC EDSS in the active outbreaks workflow.

Designation of Lead Investigator

The state epidemiologist or clinician creating the outbreak will designate a lead investigator at the time of the outbreak creation. Typically the lead investigator will be nominated by a LHD if the outbreak is contained within their county. For regional outbreaks of diseases, the lead investigator may be named from one of the counties having cases. In high profile diseases, state wide or national outbreaks, the lead investigator will usually be a CD or VPD representative. The lead investigator may change as the outbreak progresses from county to regional to state in scope. The lead investigator will determine which NC EDSS events should be linked to the outbreak.

Completion of Outbreak / Exposure Information Package

The Outbreak / Exposure Information Package within the NC EDSS outbreak event will be completed by the state user creating the outbreak event and updated by the state SME during the outbreak as needed.

Development of Outbreak Question Packages

Outbreak Question Packages provide a means for documenting questions specific to an outbreak into NC EDSS. Development of Outbreak Question Packages will be the responsibility of the lead investigator and state SME. The state SME will have the responsibility of ensuring the questions packages meet data requirements and are entered into the outbreak event. LHD should contact the state SME as needed to make changes to outbreak questions.

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Data Entry into NC EDSS

LHDs are responsible for creating cases, linking cases to the Outbreak event, completion of the events including the outbreak question package and reassignment of individual events to the state.

The state will review each submitted event, determine its' classification, report events to CDC if applicable and close the event.

Where the LHD finds numerous contacts or cases linked to an event, it may be advantageous to use an excel spread sheet to enter new events. A standardized excel spread sheet titled "OutbreakHeader.csv Description: Generic Import Roster" is available at the printer icon on the tool bar within any outbreak. LHDs should copy the spread sheet, enter the required data for each case. Spread sheets containing patient data must not be e-mailed as attachments. Spread sheets containing patient data can be attached to an existing NC EDSS event, mailed or sent by courier. LHDs should contact the State SME assisting with the outbreak for instructions on forwarding of the spreadsheet. Once the spread sheet has been received by the state, the data will be reviewed and imported into NC EDSS creating events for valid line entries. This greatly reduces data entry time into NC EDSS.

Entry of data into the Generic Import Roster must be done in the same format the data appears in NC EDSS to be imported, that is dates should be entered in mm/dd/yyyy format, SSN must be entered in ###-##-#### format etc. If sufficient information is provided, the import function will detect duplicate entries. If insufficient information is given, duplicate persons (and therefore events) will be created during the import procedure. Once an event is created in NC EDSS, future imports will not update the event. LHD should identify duplicates to the state SME assisting for person deduplication. LHDs will then have the responsibility of deduplicating the events.

Data Reports

During the course of an outbreak the requirement for reports not currently available in NC EDSS may be recognized. LHD users should contact the state SME assisting the investigation regarding reporting needs.

Closing of the Outbreak

When the SME receives the Outbreak Report, the SME will attach it to the outbreak the event and close the outbreak event. The SME will ensure any required reporting to CDC is accomplished.

Non-reportable Disease Outbreaks

Outbreaks of non-reportable diseases may be recorded in NC EDSS by utilization of specific Non-Reportable Disease Models. Counties should contact the state for which model to use for their specific outbreak. Events are entered and linked to the outbreak in the same manner as reportable diseases but individual cases will not be reported to CDC.

Parallel Programs

Parallel programs for rapid collection and analysis of outbreak data such as Epi-Info may be used by LHD. Individual Reportable Events must still be entered and the outbreak event created within NC EDSS. If the disease is non-reportable, only the outbreak must be created, supporting line lists and other documents may be attached to the outbreak event with the outbreak report.

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Outbreak Summary Report

At the conclusion of the outbreak, the lead investigator is responsible for generating the outbreak statistics report in NC EDSS and drafting an outbreak summary report. Local rules should be followed for the review and forwarding of the report however the report should reach the state within the 30 day time period specified in NCAC 41 .0201. Outbreak reports can be forwarded to the state by attaching the report to an individual case linked to the outbreak. The Lead Investigator must then notify the state SME of the event identification number where the report is attached by telephone or email. This allows for rapid secure transfer of the report in an electronic format.

The format for the Local Health Department Outbreak Summary Investigation report is suggested; if an alternative format is used, please include all of the data elements in the outbreak summary report to the Division of Public Health.

LOCAL HEALTH DEPARTMENT EPI SUMMARY REPORT of OUTBREAK INVESTIGATION [OUTBREAK NAME] [PERIOD OF TIME]

PART I: Brief Description of Initial Findings, including:

1. Context of outbreak (e.g., restaurant, school, institution, etc.)
2. Population at risk
3. Etiologic agent if identified
4. Significant lab results

PART II: Case Definition, including:

1. Criteria for confirmed, probable, and suspect status
2. Case definition history, if applicable

PART III: Risk Communication, including:

1. Talking points
2. Press releases
3. Health care professional alerts

PART IV: Incident Command System structure, if applicable.

PART V: Attach a copy of NC EDSS FINAL OUTBREAK STATISTICS REPORT