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Investigation of Possible Bacterial Meningitis Outbreak

After-Action Report/Improvement Plan

December 28, 2017

Date Submitted: March 2, 2018

Tuscarawas County General Health District

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance. Specific to this report, the exercise objectives align with the Public Health Preparedness Capabilities: National Standards for State and Local Planning and ASPR's National Guidance for Healthcare Preparedness and the Hospital Preparedness Program Measures. Exercise information required for preparedness reporting and trend analysis is included; users are encouraged to add additional sections as needed to support their own organizational needs.

EXERCISE/EVENT OVERVIEW

Event Name	Investigation of Possible Bacterial Meningitis Death and Exposures
Event Dates	12/15/2017 – 12/27/2017
Scope	This was a potential public health emergency that occurred when Tuscarawas County experienced the death of two people from confirmed bacterial meningitis over a 10-day period. Event participation included the TCHD Health Commissioner, the Department Directors, the acting Contagious Disease Nurse, the contracted Epidemiologist and the PHEP Coordinator. Also participating in the event were New Philadelphia City Health Department, Tuscarawas County Emergency Management Agency, Trinity Hospital Twin City, Union Hospital, Tuscarawas County Coroner's Office.
Mission Area(s)	Protection, Mitigation, Response, and Recovery
PHEP Capabilities Demonstrated	List the Public Health Emergency Preparedness (PHEP) capabilities and the number demonstrated during the real-world event: Capability 2: Community Recovery. Capability 3: Emergency Operations Coordination. Capability 4: Emergency Public Information and Notification. Functions Capability 6: Information Sharing. Functions Capability 13: Public Health Surveillance and Epidemiological Investigation.
Objectives	The goals during this real-world event were to provide information to the public, to identify those people who had potential exposure to the index patient(s) and in the first case, to coordinate prophylactic administration of the antibiotics recommended by the CDC and ODH. Incident Objectives for the investigation(s) were identified as: 1. Notify stakeholders and gather necessary EEI. 2. Develop a public information and risk communications statement 3. Notify the close contacts of the treatment recommendations per ODH and CDC. 4. Assemble information packet to distribute to the close contacts 5. Develop press releases and social media messaging and update throughout the course of the investigation 6. Conduct epidemiological investigation to determine if interrelation exists between Case 1 and Case 2. 7. Assist the affected communities to aid them in returning to pre-incident levels of functioning.

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Threat Hazard	Class B Infectious Disease exposure
Event Catalyst	Event 1, December 15, 2017: After receiving report from the Tuscarawas County Coroner of preliminary autopsy results from the death of a student at a local high school indicating possible bacterial meningitis, TCHD immediately began consultation with the Ohio Department of Health (ODH) and the Centers for Disease Control and Investigation (CDC) to understand the time-bound response steps that should occur in light of the supposed type of the bacterial meningitis. The TCHD then led the investigation by notifying persons who may have had contact with the index patient, or close contacts, in coordination with school administration and local hospitals. The advisement from ODH and CDC was to advise close contacts of the need to procure prophylaxis treatment in a timely manner. This was noted by the TCHD response team to be of paramount importance. The index patient was then found to have streptococcal pneumonia, the portal through which the index patient developed and then succumbed to bacterial meningitis. Event 2, December 26, 2017: A 45-year-old female patient was taken to Union Hospital (UH) Emergency Department by EMS. The index patient had complaints of: severe headache, nausea, vomiting, upon arrival at UH the index patient began to experience altered levels of consciousness and was intubated and transferred via EMS to the Cleveland Clinic. The index patient was diagnosed with bacterial meningitis and sepsis, initially believed to be caused by streptococcal pneumonia. The index patient had attended a local church for Christmas Eve services at 1100 on Sunday morning. The Cleveland Clinic medical team caring for the index patient reported very poor prognosis. The index patient was then found to have Gram + Strain B cocci in chain, the portal through which the index patient developed and then succumbed to bacterial meningitis.
Lead Agency	Tuscarawas County General Health District, dba Tuscarawas County Health Department (TCHD).
Participating Organizations	9 organizations, approximately 46 personnel; See Appendix B for more detailed list.
Point of Contact	**Primary**: Katie Seward, MPH, CHES, CTTS, TCHD Health Commissioner Tuscarawas County Health Department 897 E. Iron Ave Dover, OH 44622 330-343-5555, ext 1164 sewardkatie@gmail.com

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EXECUTIVE SUMMARY

EVENT 1:
On Thursday morning, December 14, 2017, a 14-year-old middle school student became ill and vomited on the school bus while on the way to school. Once at the school, the student vomited in the boy's restroom. The student was placed in the school office to await the arrival of his mother who had been called to pick him up and take him home. During this time, the index patient shared a tablet with another student and had close contact with the secretary. Throughout the day, the boy began feeling increasingly worse, developing a severe headache and a fever of 102°. That evening, the boy was found unresponsive in the shower by his father and EMS was called. Tri-County Ambulance Service transported the patient in cardiac arrest to Trinity Hospital Twin City where he was pronounced dead at 23:44. The body was transported via Smith Ambulance to the Stark County Medical Examiner's Office for an autopsy.

At approximately 14:20 on Friday, December 15, 2017, Health Commissioner Katie Seward got word from Cathy Clarke, Tuscarawas County Coroner Investigator, that the preliminary cause of death is most likely bacterial meningitis. Ms. Seward then contacted the Stark County Medical Examiner to further understand the reason for suspicion. It was explained that the preliminary autopsy report showed swelling of the meninges and hemorrhage of the adrenals, but lab results would take approximately 48 hours to confirm.

At approximately 15:00, Ms. Seward contacted the Ohio Department of Health who advised that they'd gather more information and set up a conference call. At 16:30, a conference call was held between ODH and the Centers for Disease Control and Prevention. They recommended the administration of either Cipro or Rifampin within 24 hours of the exposure.

With the CDC suggestion of prophylactic administration of Cipro or Rifampin within 24 hours of exposure, it was decided that there would not be enough time to get a Point of Dispensing (POD) site set up at the TCHD, and that close contacts would be better served in a timely manner by visiting their primary care physicians, Union Hospital First Care or Mercy Stat Care, or the local

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emergency departments. However, due to not receiving the close contact list from the school until 20:30, primary care physician offices were closed with Union First Care and Mercy Stat Care closing at 21:00. This left the emergency departments as the only option to the close contacts to receive the medications.

At 15:30, Ms. Seward contacted the high school principal requesting a list of names and phone numbers of all persons who may have had close contact with the index patient, including the bus driver, the custodian, the school secretary, the students on the school bus and anyone else who may have had proximal contact with the patient.

At 17:07, a mass text was sent out to the TCHD Department Directors and the PHEP Coordinator to report to the Health Department to assist in the response. At approximately 18:00, the Emergency Response Plan was activated and the Department Operations Center was opened. The Incident was classified as a Level 4 response. Diane Rusznak, Interim Communicable Disease Nurse was called and responded to the DOC.

The following emergency preparedness partners were contacted (See Time Line for specific times):

- TCHD contracted Epidemiologist, Madhav Bhatta. He advised that he'd check ODRS and to notify him if we needed him to respond to the DOC.
- TCHD Medical Director, Dr. Daniel Blumer.
- Tuscarawas County Emergency Management Agency Director, Alex McCarthy contacted and reported to the DOC to offer assistance and advice.
- Tuscarawas County Coroner Jeffery Cameron, MD and Coroner's Investigator Cathy Clarke.
- Tuscarawas County Board of Health President Michael Cochran.
- Tuscarawas County Sherriff, Orvis Campbell was briefed on the situation.
- New Philadelphia City Health Department Health Commissioner Vickie Ionno and Contagious Disease Nurse Nichole Bache called and responded to the DOC for assistance.
- Union Hospital and Trinity Hospital – Twin City were contacted and told to expect a surge of patients requesting the antibiotics. Both hospitals report adequate supplies of Cipro and Rifampin, as well as sources to get more as needed.
- The following personnel were contacted and talked with at Union Hospital:
    - Rick Mason, Emergency Preparedness Planner and Head of Security
    - Kathy Wiggs, pharmacist
    - Kevin Miller, Emergency Department Physician
    - An Infectious Disease Physician (name unknown)
- The following personnel were contacted and talked with at Trinity Hospital – Twin City:
    - Doug Hart, RN, emergency Preparedness Planner
    - Unknown contact in the Emergency Department
- Mercy Stat Care, unknown contact.
- Union Hospital First Care, unknown contact.
- Community Mental Health agency.
- Northeast Central Ohio (NECO) Regional Planning and Health Care Coalition coordinator, Chris Barker.

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- Emergency Departments at Southeast General Hospital and Coshocton County Memorial Hospital were notified of the possibility of patients seeking prophylaxis treatment.
- Index patient/victim's school principal and the school district's superintendent.
- A blast fax was sent to physician offices and other healthcare partners.

At 20:26, Community Mental Health (CMH) was contacted to seek their input and assistance in providing mental/behavioral health services to close contacts and those persons effected by the incident. They agreed and provided their Crisis Line number as well as the offer to attend the school on Monday if the superintendent requested it.

At approximately 20:30, the close contact list was received from the High School Principal, which included 63 contacts. A prepared statement was read to each contact, or the contact's parent/guardian, advising them to report to the closest emergency room or urgent care center to receive the medication. The last contact was made by 21:00.

A press release was created and sent to local media. TCHD Facebook page and the TCHD Website was updated.

At 10:30, Saturday, December 16, Tuscarawas County Coroner notified Ms. Seward of the preliminary culture results that showed the cause of death was meningitis that was caused by streptococcal pneumonia. These results were confirmed at 07:50 on Monday, December 18.

The Health Commissioner contacted the school district superintendent to communicate the latest findings. The superintendent had closed the school for Monday to allow for a deep cleaning of the school and bus.

On Monday, December 18, follow-up phone calls were made to those persons identified as having close contact with the index patient to confirm that they had received the prophylaxis treatment.

A Hot Wash was conducted at 08:15 on Monday, December 18. Strengths and areas for improvements were identified.

EVENT 2:
On December 26, 2017, at approximately 07:50, TCHD Director of Nursing Amy Kaser, RN, was approached by a TCHD employee inquiring if Ms. Kaser was aware of a report on social media that another case of bacterial meningitis was suspected in the county. Upon investigation, Ms. Kaser found a post about a woman from the Sugarcreek area that was in the Cleveland Clinic with bacterial meningitis. Ms. Kaser immediately notified the Health Commissioner, Katie Seward, MPH, CHES, CTTS, at 08:00. Ms. Seward then contacted the directors and the PHEP Coordinator for the Initial Incident Assessment Meeting.

Dr. Kevin Miller from Union Hospital ER called Ms. Seward to provide demographic information and offer a brief case history. The patient is a 45-year-old female. Sometime in the afternoon of December 24, the patient began to complain of a severe headache and nausea and local EMS was called at 15:37. The patient was transported to Union Hospital, arriving at 16:10. While in the ER, the patient's neurological condition worsened and the patient subsequently was intubated and

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transferred to the Cleveland Clinic. Due to presentation and initial labs, the patient was diagnosed as probable bacterial meningitis caused by streptococcal pneumonia.

The patient had attended a Christmas Eve Service at a local church earlier in the day (11:00) and had apparently felt fine. Attendance at this service was approximately 1,500 people. Initial concern that the patient may have come into close contact with an unknown number of people around her at the church. A heads-up phone call was made to the church administrator at 12:08. He was already aware of the concern since pastors from the church had been at the Cleveland Clinic with the patient, and they had already informed their staff.

The patient is a secretary at a local Elementary School. The school district's superintendent contacted TCHD requesting information and direction. Due to the fact that the school closed for Christmas break on Wednesday, December 20th, and the patient was asymptomatic at that time, it was communicated that there was virtually no risk to the persons at the school.

The diagnosis of bacterial meningitis caused by streptococcal pneumonia was alarming due to the first case. TCHD contracted Epidemiologist, Dr. Bhatta, was consulted, and it was decided to activate the DOC and begin further investigation. The Department Operations Center was opened at 09:15, with Ms. Seward the Incident Commander.

Union Hospital's EMS Coordinator, Brian Stewart, was contacted and provided the EMS patient care report.

Ohio Department of Health was consulted at 09:20 and several more times during the day. ODH advised that they would contact the Cleveland Clinic for further information, which they did. They also asked CCF to contact TCHD, and an Infectious Disease Nurse called to provide more information. The patient was on a ventilator and not responding. Pupils were fixed and dilated and prognosis was very poor. At the time of the call, CCF staff still believed that the bacterial meningitis was caused by streptococcal pneumonia.

At approximately 09:30 Ms. Kaser received the initial blood culture report from Union Hospital which showed a Gram + Strain B cocci in chain, which proved that the patient did not have streptococcal pneumonia. Subsequent communications with the Cleveland Clinic staff, TCHD Epidemiologist Dr. Bhatta, the ODH Medical Director and infectious disease personnel confirmed that this patient's bacterial meningitis was not caused by streptococcal pneumonia.

At approximately 14:20, stakeholders were notified of the findings of the investigation. Findings were communicated to the church administrator, the school district superintendent, as well as local media. Updates were made to the TCHD Facebook page and the TCHD website and both were updated several times over the course of the week.

The following emergency preparedness partners were contacted (See Time Line for specific times):

- TCHD contracted Epidemiologist, Madhav Bhatta.
- TCHD Medical Director, Dr. Daniel Blumer.
- Tuscarawas County Emergency Management Agency Director, Alex McCarthy.

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- Tuscarawas County Coroner Jeffery Cameron, MD and Coroner's Investigator Cathy Clarke.
- Tuscarawas County Board of Health President Michael Cochran.
- New Philadelphia City Health Department Health Commissioner Vickie Ionno and Contagious Disease Nurse Nichole Bache.
- The following personnel were contacted and talked with at Union Hospital:
    - Kevin Miller, Emergency Department Physician
    - UH Microbiology Lab personnel
- The following personnel were contacted and talked with at Cleveland Clinic:
    - Joan Kowalczyk, Infectious Disease Nurse
- Northeast Central Ohio (NECO) Regional Planning and Health Care Coalition coordinator, Chris Barker.
- Church administrator.
- Index patient/victim's school district's superintendent.
- A blast fax was sent to physician offices and other healthcare partners.

TCHD received notice that the patient was pronounced dead at 14:32 after being removed from life support.

A Department Hot Wash was conducted at 08:00 on Wednesday, December 27. Weaknesses and strengths were identified.

Due to the TCHD being inundated by concerned citizens, worried well, and various media outlets, a news conference was held at 15:00 hours on Thursday, December 28. The news conference was conducted at the Tuscarawas County Emergency Management Agency's EOC, located at 2295 Reiser Ave., SE, New Philadelphia. Television news media were invited from Cleveland area, Steubenville and Wheeling area. Radio and print news media from Tuscarawas and adjoining counties were invited.

A copy of the news conference video is available on the TCHD Facebook Page. https://www.facebook.com/tchdnow/

Incident(s) Objectives

The following objectives for both incidents/investigations were identified:

1. Notify stakeholders and gather necessary EEI.
2. Develop a public information and risk communications statement
3. Notify the close contacts of the treatment recommendations per ODH and CDC.
4. Assemble information packet to distribute to the close contacts
5. Develop press releases and social media messaging and update throughout the course of the investigation
6. Conduct epidemiological investigation to determine if interrelation exists between Case 1 and Case 2.
7. Assist the affected communities to aid them in returning to pre-incident levels of functioning.

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After Action Conferences

After action conferences (AAC) were held with Trinity Hospital Twin City and Union Hospital to discuss each agency's response and the coordination between the agencies. Major strengths and areas of concerns were identified. The first case index patient's school administration did not respond to our requests for them to be included in the AAC.

Major Strengths

The major strengths identified are as follows:

- Community Recovery. Collaboration between the hospital emergency rooms, urgent care and first care centers; hospital pharmacies and labs; school district superintendents; church personnel; Community Mental Health and other stakeholders allowed for the community to work together and recover from these tragic incidents.
- Emergency Operations Coordination. Communications and coordination between the Tuscarawas County Emergency Management Agency Director and the Northeast Central Ohio (NECO) Regional Preparedness and Healthcare Coalition Coordinator went very well, with both agencies offering assistance and advice. Communications with Ohio Department of Health staff proved to be crucial and beneficial.
- Emergency Public Information and Warning. A unified, consistent message was drafted and delivered to the close contacts, the school districts, a very large church, as well as a press release to local media, TCHD website and Facebook page.

Primary Areas for Improvement

Throughout the event, opportunities for improvement in Tuscarawas County Health Department's ability to respond to an incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Incorporation of mental/behavioral health services into TCHD's plans and responses. The decision to contact Community Mental Health was not made until late into the response in the first incident. Mental and behavioral health personnel would have been beneficial to have at the TCDOC to address close contact concerns.
    - Since the incident, meeting shave been held with Professional and Family Counseling Services (PFCS) and an MOU is being
- TCHD's use of the Initial Incident Assessment SOP as well as the Emergency Response Plan Activation SOP needs integrated into our decision-making process. This should be done for documentation sake and to make a smoother transition into the Incident Command System.
    - Training on both of these SOPs will take place over the next couple of months.
- Communications and information sharing. As with many incidents, we found several gaps:
    - There was a gap between the hospitals and the TCHD as to who had been contacted and who needed the prophylaxis, as well as how many people to expect and the time frame to expect them. TCHD communication with the hospitals did not directly provide procedures and actions to take for contacts visiting their facility.
        - On future incidents, the TCHD will send the same information that is given to close contacts to the hospitals. A liaison from TCHD will be sent to the hospitals to assist them and answer any questions.

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  - There was a gap with the index patient's school administration. After the Health Commissioner contacted them and stressed the need for a list of close contacts so they could receive the prophylaxis, they planned a meeting with the close contacts on Saturday, December 16th (48 hours after the incident). There was another misunderstanding when the principal started to make the contact calls instead of getting the contact information to the health department so a unified, consistent message could be communicated to the close contacts of the index patient's.
    - An effort will be made to verify that the proper information has been received and communicated, using email follow up to verbal communications.
- Opening of a Point of Dispensing (POD) site. Both hospitals stressed that the opening of a POD site would have eliminated, or lessened, the community impact and recovery from the first incident. Had a POD been established, the community's costs would have been greatly reduced, lessening the financial burden placed on families.
  - The establishment of PODs is under discussion with the TCHD Health Commissioner and PHEP staff. Plans will be revisited and training will be conducted to bolster the TCHD ability to open and staff a POD.
- Both hospitals also stressed the need to have a better communications plan internally. Neither facility activated their internal disaster plans, which would have recalled staff and opened up more resources to alleviate the impact of the increased patient load.
  - The TCHD has no authority to address improvement plans for this area.
- Wi-Fi connection problems were discovered, with intermittent disconnections and problems logging on.
  - As of this writing, the TCHD Information Technology contractor has repaired the issues that we had.

Conclusion

In conclusion, and while is room for improvement, TCHD response to these tragic events were successful. In the first case, it resulted in approximately 90 persons receiving prophylaxis treatment, including 9 EMS providers who transported the index patient and 10 Trinity Hospital - Twin City Emergency Department staff.

In the second case, a thorough investigation and cooperation between multiple agencies and stakeholders resulted in the determination that the cases were not related and that the public health was not threatened.

Subsequent training and exercises will focus on incident assessment, Emergency Response Plan activation, and POD site activation. Another area of focus will be educating stakeholders on the role that the health department must play during an incident involving a contagious disease.

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ANALYSIS OF PUBLIC HEALTH EMERGENCY PREPAREDNESS (PHEP) CAPABILITIES

Objective	PHEP/HPP Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Notify stakeholders and gather necessary essential elements of information	PHEP Capability 6: Information Sharing		S		
Develop a public information and risk communications statement	PHEP Capability 4: Emergency Public Information and Warning	P			
Notify the closest contacts of the treatment recommendations per ODH and CDC.	PHEP Capability 4: Emergency Public Information and Warning	P			
Assemble an information packet to distribute to the close contacts.	PHEP Capability 4: Emergency Public Information and Warning	P			
Develop press releases and social media messaging and update throughout the course of investigation.	PHEP Capability 4: Emergency Public Information and Warning		S		
Conduct an epidemiological investigation to determine if interrelation exists between Case 1 and Case 2.	PHEP Capability 13: Public Health Surveillance and Epidemiological Investigation	P			
Assist the effected communities, to aid them in returning to the preincident levels of functioning	PHEP Capability 2: Community Recovery		S		

The rating scale includes four ratings:

- **Performed without Challenges (P):** The PHEP functions, tasks, and performance measures or the HPP activities, objectives, and performance measures associated with the capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. HPP
- **Performed with Some Challenges (S):** The PHEP functions, tasks, and performance measures or the HPP activities, objectives, and performance measures associated with the capability were completed in a manner

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Objective	PHEP/HPP Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified. • **Performed with Major Challenges (M):** The PHEP functions, tasks, and performance measures and or the HPP activities, objectives, and performance measures associated with the capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws. • **Unable to be Performed (U):** The PHEP functions, tasks, and performance measures or the HPP activities, objectives, and performance measures associated with the capability were not performed in a manner that achieved the objective(s).					
Note: Exercise Event review forms					

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The following sections provide an overview of the performance related to each event objective and associated PHEP capability, highlighting strengths and areas for improvement, a list of applicable reference documents, and capability analysis.

Objective 1: Notify stakeholders and gather necessary essential elements of information

PHEP Capability 6: Information Sharing

Throughout this event, the majority of the TCHD resources went towards this capability.

Function 1: Identify stakeholders to be incorporated into information flow.

A. It was recognized that there would be many stakeholders effected by these events, including hospitals, emergency medical services, school districts, a church, mental health agencies, Tuscarawas County Emergency Management Association, Ohio Department of Health and the Northeast Central Ohio (NECO) Regional Planning and Healthcare Coalition.

Function 2: Identify and develop rules and data elements for sharing.

A. In order to provide a consistent message, the Health Commissioner and the Public Information Officer developed public statements and press releases as well as the script that was used when communicating with the close contacts of the index patients.

Function 3: Exchange Information to determine a common operating picture.

A. Communications with the county coroner's office which provided the basis for the TCHD response to the first incident, as well as the determination of the final culture reports.
B. Sharing of recommended prophylaxis treatment between the Ohio Department of Health, the Centers for Disease Control and Prevention and the TCHD.
C. Information sharing between the TCHD and local hospitals regarding the heads-up of possible surge of patients seeking prophylaxis, determining the number of doses available
D. Communications with the ODH, Union Hospital Lab, epidemiologists and the Cleveland Clinic provided a consistent conclusion that the two cases of bacterial meningitis are not related.

Strengths

The Partial capability level can be attributed to the following strengths:

Strength 1: The DOC staff, as directed by the IC, developed a consistent message template that was used to communicate with stakeholders and the media.

Strength 2: Communication with the hospital emergency departments their pharmacies, and the hospitals' emergency planners allowed for over 90 people to receive prophylaxis treatment.

Strength 3: Information exchange between key health professionals (ODH, CCF, UH, TCHD Staff) was key to determining that the two cases were unrelated and posed no threat to the communities.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

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Area for Improvement 1: TCHD must communicate with local stakeholders the key elements of essential information (EEI) including the same information that is given to the public. A liaison from TCHD will be sent to the hospitals to assist them and answer any questions.

Area for Improvement 2: TCHD must communicate with local stakeholders about the role and responsibilities that the local health department plays in the protection of public health.

Reference:

Ohio Revised Code 3701.201, 3709.11, 3709.22; TCHD EOP ERF#2, #3, #4

Analysis: In Case 1, both hospitals did not receive the same information that the close contacts were being told, resulting in the hospitals not knowing what the procedures and recommendations the TCHD was making. Also in Case 1, communications with the index patient's school administration was not clear or understood, resulting in a delay in getting the close contacts list.

Objective 2: Develop a public information and risk communications statement.

PHEP Capability 4: Emergency Public Information and Warning

Throughout these events, much of the TCHD resources went towards this capability.

Function 1: Activate the emergency public information system

A. Prior to these incidents, TCHD identified who could function as the Public Information Officer during an event. This person has received necessary training.
B. A Public Information Officer was identified early in both events and was present in the DOC. The PIO maintained contact with key stakeholders, the media and social media.
C. A blast fax was sent to area physician offices.

Function 2: Determine the need for a joint public information system

A. Since the TCHD was the only county agency investigating these events, a JIC was determined as not being necessary.

Function 3: Establish and participate in information system operations

A. At the direction of the Incident Commander (Health Commissioner), the PIO developed risk communication templates and press releases that were then disseminated to the stakeholders.
B. During Event 2, collaboration was made with the PIO from the Ohio Department of Health to develop a statement.

Function 5: Issue public information, alerts, warnings, and notifications

A. TCHD used social media (Facebook), the TCHD website; print, radio and TV media to issue alerts and notifications.

Measure 1: Time to issue a risk communication message for dissemination to the public

- During Event 1, risk communication was issued as soon as the close contact numbers were received from the school district superintendent.
- During Event 2, risk communication was done in the form of a press release which was sent not only to the media, but to stakeholders.

Strengths

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The [full] capability level can be attributed to the following strengths:

Strength 1: Establishment of a PIO, according to the TCHD Emergency Operations Plan, ERF #'s 2, 3, 4.

Strength 2: The collaboration with both the TCEMA Director and the Ohio Department of Health to develop accurate and timely statements and press releases.

Strength 3: Effective use of social media and websites to disseminate risk communications.

Objective 3: Notify the close contacts of the treatment recommendations per ODH and CDC.

PHEP Capability 4: Emergency Public Information and Warning

Function 4: Establish avenues for public interaction and information exchange

A. Several avenues were made available to the public to seek information. The TCHD Facebook page and the TCHD Webpage were updated with the latest information for both events. In press releases and in scripted calls to close contacts, the TCHD website address was communicated, and the after-hours contact phone number was also distributed.

Function 5: Issue public information, alerts, warnings, and notifications

A. TCHD used social media (Facebook), the TCHD website; print, radio and TV media to issue alerts and notifications.

Measure 1: Time to issue a risk communication message for dissemination to the public

- During Event 1, risk communication was issued as soon as the close contact numbers were received from the school district superintendent.
- During Event 2, risk communication was done in the form of a press release which was sent not only to the media, but to stakeholders.

Strengths

The partial capability level can be attributed to the following strengths:

Strength 1: A scripted notification was created by the health commissioner and the PIO which allowed for consistent information to be given to all of the close contacts.

Strength 2: Effective use of social media and websites to disseminate risk communications.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: There was a significant delay in the TCHD receiving the list from the index patient's school administration. The principal did not comprehend the urgency of making the contacts. Future communications are to include email or faxes to provide written reinforcement of telephone conversations.

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Objective 4: Assemble an information packet to distribute to the close contacts.

PHEP Capability 4: Emergency Public Information and Warning

Strengths

Function 4: Establish avenues for public interaction and information exchange

A. Several avenues were made available to the public to seek information. The TCHD Facebook page and the TCHD Webpage were updated with the latest information for both events. In press releases and in scripted calls to close contacts, the TCHD website address was communicated, and the after-hours contact phone number was also distributed.

Function 5: Issue public information, alerts, warnings, and notifications

A. TCHD used social media (Facebook), the TCHD website; print, radio and TV media to issue alerts and notifications.

Measure 1: Time to issue a risk communication message for dissemination to the public

- During Event 1, risk communication was issued as soon as the close contact numbers were received from the school district superintendent.
- During Event 2, risk communication was done in the form of a press release which was sent not only to the media, but to stakeholders.

Strengths

The [full] capability level can be attributed to the following strengths:

Strength 1: Effective use of social media and websites to disseminate risk communications.

Strength 2: A consistent risk communications message was conveyed to the close contacts as well as the public throughout both incidents.

Objective 5: Develop press releases and social media messaging and update throughout the course of the investigation

PHEP Capability 4: Emergency Public Information and Warning

Function 4: Establish avenues for public interaction and information exchange

B. Several avenues were made available to the public to seek information. The TCHD Facebook page and the TCHD Webpage were updated with the latest information for both events. In press releases and in scripted calls to close contacts, the TCHD website address was communicated, and the after-hours contact phone number was also distributed.

Function 5: Issue public information, alerts, warnings, and notifications

B. TCHD used social media (Facebook), the TCHD website; print, radio and TV media to issue alerts and notifications.

Measure 1: Time to issue a risk communication message for dissemination to the public

- During Event 1, risk communication was issued as soon as the close contact numbers were received from the school district superintendent.
- During Event 2, risk communication was done in the form of a press release which was sent not only to the media, but to stakeholders.

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Strengths

The [Partial] capability level can be attributed to the following strengths:

Strength 1: Effective use of social media and websites to disseminate risk communications.

Strength 2: A consistent risk communications message was conveyed to the close contacts as well as the public throughout both incidents.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: During the course of both events, public responses to TCHD Facebook posts began to reflect false information, accusations and attacks. Timely attention to public response, as well as reviewing and eliminating some responses, need to be addressed.

Reference: EOP ERF#4

Analysis: Comments by the public can spread false information, as was determined in comments posted beneath TCHD posts. Offensive and false comments were deleted.

Objective 6: Conduct an epidemiological investigation to determine if interrelation exists between Case 1 and Case 2.

Capability 13: Public Health Surveillance and Epidemiological Investigation

Function 1: Conduct public health surveillance and detection

- TCHD received 2 reports of bacterial meningitis over a 10-day period which prompted an investigation to determine if the cases were interrelated.

Function 2: Conduct public health and epidemiological investigations

- TCHD conducted the investigation with collaboration between the TCHD-contracted epidemiologist, the effected hospitals and labs, the Ohio Department of Health and the Centers for Disease Control.

Function 3: Recommend, monitor, and analyze mitigation actions

- In Case 1, TCHD followed ODH and CDC recommendations to have close contacts receive prophylaxis medications. TCHD made the close contact notifications and contacted local hospital emergency rooms and pharmacies to advise of the possible surge of patients.

Function 4: Improve public health surveillance and epidemiological investigation systems

- After Action Conferences were conducted with each of the hospitals to determine steps to take for future epidemiological investigations.

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Strengths

The [Full] capability level can be attributed to the following strengths:

Strength 1: Recognition that two cases of bacterial meningitis in Tuscarawas County within 10 days is extremely rare, and a potential of the cases being related needed to be investigated.

Strength 2: Collaborative effort between TCHD, hospitals, labs, epidemiologists and the ODH provided a thorough investigation and a conclusion that the strains of bacteria were different and thus not related.

Strength 3: Mitigation of the threat in Case 1 went very well, with the hospitals receiving over 90 people seeking prophylaxis.

Areas for Improvement: N/A

Reference: N/A

Analysis: Telephone conversations must be followed up with emails or faxes to provide a written form of instruction.

Objective 7: Assist the effected communities, to aid them in returning to pre-incident levels of functioning.

Capability 2: Community Recovery

Function 1: Identify and monitor public health, medical and mental/behavioral health system recovery needs

- TCHD recognized the need for mental/behavioral health needs with Case 1, but failed to do so with Case 2.

Function 2: Coordinate community public health, medical and mental/behavioral health system recovery operations

- TCHD provided Community Mental Health contact information to stakeholders and close contacts with Case 1, but failed to do so with Case 2.

Function 3: Implement corrective actions to mitigate damages from future incidents

- In both cases, more emphasis should have been put on the mental/behavioral needs of the community. Plans and partnerships will be developed to avoid this omission in the future.
- With Case 1, the opening of a Point of Dispensing site would have alleviated costs for the families of close contacts.

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Strengths

The [Partial] capability level can be attributed to the following strengths:

Strength 1: In Case 1, mental health services were offered through Community Mental Health on an as-needed basis.

Strength 2: Community Mental Health contacted TCHD and offered their services to the Case 1 school district.

Areas for Improvement

The following areas require improvement to achieve the full capability level:

Area for Improvement 1: Mental and behavioral health needs of the community must take a higher priority in TCHD planning.

Area for Improvement 2: Mental and behavioral health agencies must be contacted to form partnerships prior to an incident.

Area for Improvement 3: Opening a POD would have greatly reduced the financial impact to the families of the close contacts in Case 1.

Reference: CDC Public Health Preparedness Capabilities, Capability 2: Community Recovery, Functions 1-3

Analysis: Mental and behavioral needs of the community too often becomes an afterthought. Steps are being taken as of this writing, to develop MOUs with local agencies to address these concerns early in an incident.

Shortly after Case 1, TCHD and the hospitals began to receive phone calls from people who were concerned about the costs of receiving the prophylaxis treatment. Since the close contacts and their families were sent to local emergency department for the treatment, they had to register as an ER patient, incurring the costs associated with an ER visit.

CONCLUSION

In summary, we believe that the investigation into these two tragic events went extremely well. It showed good exercise of our Emergency Operations Plans, Initial Incident Assessment SOP, Emergency Response Plan Activation SOP and our Communications ERFs. Our Department Operations Center was activated for each event and worked very well.

We believe that we demonstrated the following PHEP Capabilities during these events:

Capability 2: Community Recovery
Capability 3: Emergency Operations Coordination
Capability 4: Emergency Public Information and Warning
Capability 6: Information Sharing
Capability 13: Public Health Surveillance and Epidemiological Investigation

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While it went well, there are certainly areas that we need to improve on.

We have identified the following items to prepare ourselves for future events.

- Training on the TCHD Emergency Response Plan and its associated SOPs will take place over the next several months. Specific attention will be given to the Initial Incident Assessment SOP and the Emergency Response Plan Activation SOP.
- Communications flow with our stakeholders must be clearer and consistent. It is our intention to provide a health department liaison at the hospitals for future events to allow direct communications between us.
- Looking at our Medical Counter Measures Plan and addressing when we need to establish point of dispensing sites, that would alleviate the costs incurred by the families of close contacts as well as alleviate the overcrowding that was created at local emergency rooms.
- Social media can be both a help and a source of problems during an incident. False, offensive and accusatory comments made by members of the public can defeat the messages that the TCHD are trying to get out. Per the TCHD EOP ERF#4 Risk Communications Plan, the PIO is responsible for the monitoring of social media.

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APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for Tuscarawas County General Health District, dba Tuscarawas County Health Department as a result of a real-world event, the Investigation of a Possible Bacterial Meningitis Outbreak conducted between December 15th and December 27, 2017.

PHEP/HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element[1]	Primary Responsible Organization	Organization POC	Start Date	Completion Date
PHEP Capability 2: Community Recovery	1. Involvement of mental and behavioral health agencies in the response	Meet with representatives from mental and behavioral agencies to develop plans and contact procedures.	Planning	TCHD PHEP	Paul Westlake	2/5/2018	
		Add a mental and behavioral health staff member to the DOC Staff	Planning	TCHD PHEP	Paul Westlake	3/1/2018	
		Add mental and behavioral staff to the planning partners and COAD groups	Planning	TCHD PHEP	Paul Westlake	3/1/2018	
	2. Establish a POD to alleviate costs incurred by families	Review TCHD MCM Plans	Planning	TCHD PHEP	Paul Westlake	4/1/2018	
		Train all staff on POD establishment	Training, Organization, Exercise	TCHD PHEP	Paul Westlake	4/1/2018	

[1] Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

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PHEP/HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element[2]	Primary Responsible Organization	Organization POC	Start Date	Completion Date
PHEP Capability 4: Public Information and Warning	1. Monitor social media for false information, offensive remarks and accusations	Have the PIO, or their designee monitor social media comments	Organization	TCHD PIO	PIO	4/1/2018	
PHEP Capability 6: Information Sharing	1. Communicate with local stakeholders about the role and responsibilities that the local health department plays in the protection of public health.	Open dialogue with stakeholders about health department roles	Organization	TCHD Administration	Katie Seward	4/1/2018	
	2. Assure that all messages are received and understood	Develop a policy to follow-up phone conversations with emails or faxes.	Planning	TCHD PHEP	Paul Westlake	4/1/2018	
		Provide stakeholders with the same risk communications given to families.	Organization	TCHD PIO	PIO	4/1/2018	

[2] Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

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PHEP/HPP Capability	Issue/Area for Improvement	Corrective Action	Capability Element[3]	Primary Responsible Organization	Organization POC	Start Date	Completion Date
PHEP Capability 13: Public Health Surveillance and Epidemiological Investigation	1. Communication and follow-up with local hospitals to verify receipt of notifications.	Develop a policy to follow-up phone conversations with emails or faxes.	Planning	TCHD PHEP	Paul Westlake	4/1/2018	

[3] Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

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APPENDIX B: EXERCISE/EVENT PARTICIPANTS

Participating Organizations			
Participant Type	**# in Agency/Org**	**# Participating**	**% Participation**
Federal Government			
CDC	Unknown	1	Unknown
State Government			
ODH	Unknown	Unknown	Unknown
Local Government			
Tuscarawas County Health Department	62	7	11%
Tuscarawas County Coroner's Office	2	1	50%
Tuscarawas County EMA	4	2	50%
School Districts (2)	Unknown	3	Unknown
Non-government Coalition Members and Partners			
Union Hospital	Unknown	25	Unknown
Trinity Hospital – Twin City	Unknown	6	Unknown
NECO Planning and Health Coalition	Unknown	1	Unknown
Madhav Bhatta, PhD (Contracted Epi)	1	1	100%
Cleveland Clinic	Unknown	1	Unknown
Community Mental Health	Unknown	1	Unknown

Note: If you do not know the number of personnel in each agency put unknown. Use your exercise/event sign in sheets to get the total number of participants.

Additional Information/Comments

N/A

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APPENDIX C: ACRONYMS

Table E.1: Acronyms

Acronym	Meaning
AAR/IP	After Action Report and Improvement Plan
CCF	Cleveland Clinic Foundation/Cleveland Clinic Hospital
CDC	Centers for Disease Control and Prevention
CMH	Community Mental Health
DOC	Department Operations Center
EEI	Essential Elements of Information
EMS	Emergency Medical Service(s)
EOP	Emergency Operations Plan
ERF	Emergency Response Function
ERP	Emergency Response Plan
HPP	Hospital Preparedness Program
IC	Incident Commander
ICS	Incident Command System
IT	Information Technology
LOC	Level of Consciousness
NECO	Northeast Central Ohio Preparedness and Health Care Coalition
NPCHD	New Philadelphia City Health Department
ODH	Ohio Department of Health
ODRS	Ohio Disease Reporting System
PHEP	Public Health Emergency Preparedness
PIO	Public Information Officer
RN	Registered Nurse
SOP	Standard Operating Procedure
TCHD	Tuscarawas County Health Department
TV	Television
UH	Union Hospital

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APPENDIX D: PARTICIPANT FEEDBACK SUMMARY

Feedback about the TCHD response was created in Survey Monkey and sent out to Tuscarawas County Health Department staff, New Philadelphia City Health Department Staff and Tuscarawas County EMA staff who participated in the DOC and investigations.

1. TCHD response to the incident was well organized and structured:
    a. Agree: 50%
    b. Strongly Agree: 50%
2. The Incident Command System was utilized.
    a. Agree: 50%
    b. Strongly Agree: 50%
3. The Incident Command Structure was clear.
    a. Agree: 50%
    b. Strongly Agree: 33%
    c. No Opinion: 17%
4. Communications between the IC and subordinates were clear and understandable.
    a. Agree: 50%
    b. Strongly Agree: 50%
5. The DOC was activated in a timely manner.
    a. Agree: 50%
    b. Strongly Agree: 50%
6. The DOC was functional and laid out in a logical manner.
    a. Agree: 67%
    b. Strongly Agree: 33%
7. The communications (internet, phones, computer access) in the DOC was adequate.
    a. Disagree: 33%
    b. Agree: 33%
    c. Strongly Agree: 17%
    d. No Response: 17%
8. Communications with SME were clear and understandable.
    a. Agree: 50%
    b. Strongly Agree: 50%
9. I felt comfortable to provide input during the Hot Wash.
    a. Agree: 50%
    b. Strongly Agree: 50%

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APPENDIX E: EXERCISE/EVENT SUMMARY

See the attached spreadsheets for the timelines for both cases.

Date	Time	Event/Action
		SEE ATTACHED TIMELINES

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Time	Who	Comments
		12/14/2017
22:40		EMS Called
23:18		Arrive at Trinity Hospital - Twin City
23:44		Patient pronounced dead
		12/15/2017
14:20	Katie	Katie notified by Cathy Clark of cause of death
14:30	Katie	Katie contacted Stark County ME to better understand reason for suspicion
14:35	Katie	Katie calls Amy
14:45	Katie	Katie speaks with Dr. Cameron
15:00	Katie	Katie calls ODH, spoke with 2 people. They advise they will call her back.
15:15	Katie	Katie receives call from UH Infectious Disease Doctor
15:30	Katie	Katie calls HS Principal, requesting contact information for close contacts.
15:45	Katie	Katie talks with ODH and Conference call with CDC set up for 16:30
16:30	Katie	Conference call with ODH, CDC
17:07	Katie	Text sent to directors, PHEP Director
17:30	Paul	DOC Set up
17:35	Paul	Message left for Dr. Bhatta
17:44	Paul	Dr. Bhatta returned call. He was advised of the situation and he asked us to call him back if we need him to report to DOC
17:50	Katie	Dr. Cameron called UH ER to advise.
17:50	Katie	Kevin Miller treating EMS
17:56	Paul	Chris Barker called by Paul and given a heads up. Chris offered use of NECO resources.
18:00	All	Incident Assessment Meeting held. Level 4 incident. DOC established.
18:05	Caroline	Coshocton and Guernsey hospitals notified of possible people seeking meds
18:10	Val	Stat care and First care advised they'd already been contacted by Dr. Cameron.
18:14	Katie	Dr. Cameron called. States he called first care, mercy stat care, trinity
18:15	Paul	Paul Talked to Doug Hart, Trinity. He will call me back when he gets in the office.
18:17	Paul	Alex McCarthy of TCEMA Notified
18:20	Amy	Left message for Dr. Blumer.
18:20	Katie	Index family at UH for meds
18:27	Caroline	Contacted Southeast Hospital. Spoke with charge nurse and informed her of possible surge.
18:28	Katie	Kevin Miller called. States that UH has limited supply of Rifampin
18:30	Amy	NPCHD Vickie Ionno and Nichole Bache contacted and arrived at DOC
18:30	Katie	Kevin Miller states low supply of meds
18:30	Val	Mercy Stat Care reports that Dr. Cameron had called and advised them of the situation
18:43	Katie	Mike Cochran returned call
18:57	Katie	Diane Rusznak Communicable Disease nurse arrives at TCHD
19:00	Andi	Made draft press release
19:00	Amy	Dr. Blumer returned call and filled in.

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Time	Who	Comments
19:02	Loretta	Trinity Hospital ER notified
19:05	Paul	Paul Talked with Doug Hart. Advises ER staff notified and dosed. Advised 52 Cipro, 90 Rifampin.
19:05	Katie	Katie contacted school again for numbers
19:05	Katie	Katie learns school has been making notifications. Advised them that TCHD needed to be doing this.
19:05	Paul	Doug Hart (Trinity Emergency response Director) called. 50 Cipro, 90 Rifampin; ER staff from Thursday notified and dosed.
19:08	Paul	Cathy Wiggs. 240 Cipro, 40 Rifampin. Waiting on shipment of liquid cipro
19:08	Paul	Talked with Rick Mason who was aware of situation.
19:08	Paul	Cathy Wiggs, Pharmacist at UH: 240 Cipro, 40 Rifampin, waiting on emergency shipment of liquid Cipro
19:15	Paul	Called Aleisa at CMH. They agreed with us giving their contact info out and that if someone needs counseling during normal business hours to visit them.
19:17	Paul	left message with Rick Mason, UH Security
19:20	Andi	Press release
19:21	Paul	Rick Mason returned call. He is aware of situation through communication with UH.
19:27	Katie	meningitis fact sheet posted on TCHD website
19:29	Katie	Drafted script to use when making notifications
19:32	Paul	Kevin Miller called in for a staus update.
20:00	Katie	Katie talked with index family to advise we were making notifications without using their son's name
20:20	Amy	Blast Fax sent
20:26	Paul	CMH contacted for mental health advice. Gave us crisis line and offered on site assistance.
20:30	Katie	Received list of contacts from school superintendent; calls started
20:30	Katie	Contact list from school principal received and phone calls started.
20:48	Katie	Call from concerned parent
20:54	Katie	Call from concerned parent
21:15	Katie	Media release. Facebook and Website updated
21:16	Katie	Sheriff texted Katie for an update
21:21	Katie	Katie will email County Commissioners
21:30	All	TCHD DOC closed; Staff dismissed
21:35	Katie	Follow-up with Vickie Ionno
22:42	Katie	Call from concerned parent
22:47	Katie	Kevin Miller called with UH status report
23:30	Katie	Kevin Miller called with UH status report
		12/16/2017
0:00	Katie	Kevin Miller to provide list of patients treated at UH
7:08	Katie	Call from concerned parent
9:02	Katie	Call from concerned parent
10:10	Katie	Call from concerned parent
10:30	Katie	Text from Dr. Cameron ref preliminary culture results
10:43	Katie	Conversation with school superintendent

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Time	Who	Comments
11:00	Katie	Email correspondence with school superintendent
13:49	Katie	Call from concerned parent
16:49	Katie	Call from Times Reporter
	12/17/2017	
18:30	Katie	Call from concerned parent
	12/18/2017	
7:50	Katie	Cathy Clark confirmed culture reports
8:15	All	Hot Wash
9:00	Katie	Information regarding case confirmation provided to stakeholders
9:10	Katie	Phone call with school superintendent
9:15	Katie	Phone call with Head Start ref concerns with index case brother
9:20	Katie	Phone call notification to ODH
9:30	Katie	Notification and information provided to clinic and med rec staff
9:45	Katie	All Staff email sent
9:52	Katie	Email with bacteria confirmation sent to press
10:23	Katie	ODH called with further guidance
10:35	Katie	Cleveland News Channel 5 called for information
10:45	Katie	WTUZ, WJER comments
11:00	Katie	ODH called requesting specimens be sent to them
11:20	Alexa	Blast fax sent
11:36	Katie	Times Reporter calls to be updated
11:45	Katie	Call from concerned parent
12:03	Katie	ODH Calls and reports receiving a call from a concerened patient
13:30	Katie	Phone conversation with Dr. Cameron
14:00	Val	Follow up calls to families (2 hours)
14:00	Loretta	Follow up calls to families (2 hours)
14:20	Katie	Phone call from a parent concerned about cost of treatment
14:45	Katie	Voice mail left with Alex McCarthy ref financial resources for parents
14:50	Katie	Call taken from UH physicians Offices wanting additional details
14:55	Katie	Returned call to Children's Hospital
15:00	Katie	Drug susceptability results received via fax from Dr. Cameron
15:20	Katie	Voicemail left with Trinity Hospital CEO
17:59	Katie	Call placed to Chris Barker ref past practices in NECO to assist with treatment payments

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TIME	WHO	COMMENTS
12/24/2017		
11:00		Patient attends Christmas Eve Services
15:37		EMS called for severe headache
16:10		Patient arrives at Union Hospital
23:01		Patient transferred via CCF Ground Crew to Cleveland Clinic
12/26/2017		
7:50	Amy	Amy notified of possible second case of bacterial meningitis
8:00	Amy	Amy contacts Katie
8:15	Group	Initial Assessment
9:00	Paul	UH EMS Coordinator Contacted
9:02	Conference	Dr. Bhatta called and consulted
9:15	Group	DOC activated
9:20	Conference	Spoke with Ellen at ODH
9:30	Amy	Amy receives lab reports from UH
9:34	Paul	Stew at TCHD with EMS report
9:41	Amy	UH Micro contacted
9:52	Katie	Left message with Ellen at ODH
10:00	Paul	Mike at Smith Ambulance called requesting information
10:02	Conference	Consult with Dr. Bhatta
11:15	Katie	Katie talked with ODH Medical Director
11:15	Andrea	Andi talking with Super
11:45	Amy	Dr. Blumer updated
11:50	Val	Val updated Alex of conference call
11:56	Paul	Left Message with Medina Epi
12:00	Paul	Called Stew, asked him to hold off on EMS notification
12:00	Amy	Amy entered data into ODRS
12:08	Paul	Initial contact with church administrator
12:15	Katie	Cameron informed
12:24	Paul	Talked with Kristen at Medina Health Det
14:00	Conference	ODH Conference Call
14:17	Andrea	Andi called school district superintendent
14:20	Andrea	Cleaning instructions sent to superintendent
14:20	Val	Val followed up with Alex with ODH conference call info
14:30	Katie	Follow-up phone call to church administrator
14:30	Andrea	Press Release drafted and sent to media
14:33	Andrea	School superintendent called regarding Coshocton and Holmes Co. Health Departments
14:50	Andrea	Andi called Jen McCoy
14:50	Amy	Amy called East Holmes Health Clinic
15:00	Katie	TCHD Facebook page and TCHD website updated
15:05	Andrea	Press release sent to Jen McCoy
15:10	Amy	Blast Fax Sent
	Katie	Multiple concerned citizen calls received
12/27/2017		

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8:00	Group	Hot Wash
	Directors	Multiple concerned citizen calls received
12/28/2017		
15:30	Management	News Conference at TC EMA EOC

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TIME	WHO	COMMENTS
12/24/2017		
11:00		Patient attends Christmas Eve Services
15:37		EMS called for severe headache
16:10		Patient arrives at Union Hospital
23:01		Patient transferred via CCF Ground Crew to Cleveland Clinic
12/26/2017		
7:50	Amy	Amy and Marissa
8:00	Amy	Amy contacts Katie
8:15	Group	Initial Assessment
9:00	Paul	EMS Coordinator Contacted
9:02	Conference	Dr. Bhatta called and consulted
9:15	Group	DOC activated
9:20	Conference	Spoke with Ellen at ODH
9:30	Amy	Amy receives lab reports from UH
9:34	Paul	Stew at TCHD with EMS report
9:41	Amy	UH Micro contacted
9:52	Katie	Left message with Ellen at ODH
10:00	Paul	Mike at Smith Ambulance called requesting information
10:02	Conference	Consult with Dr. Bhatta
11:15	Katie	Katie talked with ODH Medical Director
11:15	Andrea	Andi talking with Super
11:45	Amy	Dr. Blumer updated
11:50	Val	Val updated Alex of conference call
11:56	Paul	Left Message with Medina Epi
12:00	Paul	Called Stew, asked him to hold off on EMS notification
12:00	Amy	Amy entered data into ODRS
12:08	Paul	Initial contact with Darby Murphy at NPCC
12:15	Katie	Cameron informed
12:24	Paul	Talked with Kristen at Medina Health Det
14:00	Conference	ODH Conference Call
14:17	Andrea	Andi called Supe
14:20	Andrea	Cleaning instructions sent to Supe
14:20	Val	Val followed up with Alex with ODH conference call info
14:30	Katie	Follow-up phone call to Darby Murphy at NPCC
14:30	Andrea	Press Release drafted and sent to media
14:33	Andrea	Supe called regarding Coshocton and Holmes Co. Health Departments
14:50	Andrea	Andi called Jen McCoy
14:50	Amy	Amy called East Holmes Health Clinic
15:00	Katie	TCHD Facebook page and TCHD website updated
15:05	Andrea	Press release sent to Jen McCoy
15:10	Amy	Blast Fax Sent
	Katie	Multiple concerned citizen calls received
12/27/2017		
8:00	Group	Hot Wash

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	Directors	Multiple concerned citizen calls received
12/28/2017		
15:30	Management	News Conference at TC EMA EOC

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APPENDIX F: OPHCS MESSAGE REPORT

Attached is a copy of the OPHCS Message Report sent out on Thursday, December 28, 2017.

To pull a message report in the OPHCS system:

1. Navigate to the "Messages" tab and select the "Sent" sub tab on the right of the screen.
2. You will now see all the messages you have sent, if you sent the message please skip step 3
3. From the drop-down menu that says "Sent by you" select "Sent by all Administrators"
4. Scroll through the list until you find the message you want to pull a report for.
5. Once the message has been selected, use the "Actions" drop down box to select "Export"
6. In the "Export Message" window check the box beside all the report options you wish to retrieve.
7. Click download
8. Congratulations you have successfully pulled an OPHCS message report.

Example OPHCS Message Report

Responses By Delivery Method - All Recipients

Delivery Method	Delivered	Delivered/ Responded	Delivered/No Response	Delivery Failed
Email	52	30	22	0
Phone	45	17	28	0
Internal	52	0	52	0

Recipient Statistics - By Containers

Recipient Containers	Recipient Count	Delivered	Responded	No Response	Failed	Not Contacted
ODH-SNS 2nd Tier Assignment	10	10	10	0	View values	0
ODH-SNS CRT Response	16	16	16	0	View values	0
ODH-SNS Response	46	46	42	4	View values	0

Advanced Delivery Options

Text Delivery Delay	0minutes
Send Time	Immediately
Message Delivery	escalation
Time this message is available for response	24 hours
Validate Recipient	Yes
Number of times to contact	3
Time between each contact attempt	10 minutes

Message Details

Sender	Ohio Public Health Communication System
Subject	SNS Responder Test Alert
Message Types	Email Internal Phone
Is this communication sensitive	No
Communication Type	Alert
Long Message	"This is an ALERT"

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APPENDIX G: ICS FORM 205

[A completed ICS 205 form must be used for this section for the AAR to document the exercise/event radio communication plan. This information can be directly entered into the editable form below or scanned in and attached from the subgrantees ICS Form 205.]

1. Incident Name:	**2. Date/Time Prepared:**	**3. Operational Period:**
Investigation of Possible Bacterial Meningitis Outbreak	Date: 12/28/2017 Time: 1030	Date From: 12/15/2017 Date To: 12/27/2017 Time From: 1420 Time To: 1600

4. Basic Radio Channel Use: ***Radios not used***

Zone Grp.	Ch . #	Function	Channel Name/Trunked Radio System Talk group	Assignment	RX Freq N or W	RX Tone/NAC	TX Freq N or W	TX Tone/NAC	Mode (A, D, or M)	Remarks
										Radios not used

5. Special Instructions:

N/A

6. Prepared by (Communications Unit Leader)**:** Name: N/A Signature: N/A

ICS 205	**IAP Page**	Date/Time: 12/28/2017 12:00 AM

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