This Situation Manual (SitMan) provides exercise participants with all the necessary tools for their roles in the exercise. Some exercise material is intended for the exclusive use of exercise planners, facilitators, and evaluators, but players may view other materials that are necessary to their performance. All exercise participants may view the SitMan.
EXERCISE OVERVIEW

Exercise Name

OPERATION ENDERS' GAME: Measles Virus Tabletop Exercise (TTX)

Exercise Date

April 29, 2015

Scope

This exercise is a Tabletop Exercise (TTX), planned for 3.5 hours in St. Johns County, Florida for groups and agencies associated to the Northeast Florida Healthcare Coalition. Exercise play is limited to facilitated discussion of issues arising from a scenario based on a Measles Outbreak in the Northeast Florida region. This exercise will specifically address issues pertaining to continuity of operations, information sharing, and medical surge.

Healthcare Preparedness Capabilities

#2 – Healthcare System Recovery (Continuity of Operations)
#6 – Information Sharing
#10 – Medical Surge

Objectives

See Exercise Objectives and Preparedness Capabilities (pages 3-4).

Threat or Hazard

Measles Virus

Scenario

The 2014/2015 Measles Virus outbreaks in the United States is a relevant current issue because of the re-emergence of this previously eradicated virus. Teenagers from the local area recently participated in school related activities in Orlando where they came into contact with an infected traveler staying at the same resort. Unvaccinated people from the team become infected and transmit measles locally, resulting in a regional measles outbreak.

Sponsors

Florida Department of Health (FDOH)
Northeast Florida Healthcare Coalition (NEFLHCC)

Participants

Participants from the following disciplines:
Emergency Management; Hospital and Health Care Organizations; Schools/Educational Organizations; Local/State Public Health Agencies; Fire/ Emergency Medical Services; Public Information Office

Point of Contact

Eric Anderson, Senior Regional Planner
Northeast Florida Regional Council
904-279-0880
eanderson@nefrc.org
GENERAL INFORMATION

This TTX was developed to practice the coordination and communication activities in a Measles Virus outbreak scenario among community response partners.

Exercise Objectives and Preparedness Capabilities

The exercise objectives in Table 1 describe the expected outcomes for the exercise and are aligned with the Health Care Preparedness Capabilities contained in the Office of the Assistant Secretary for Preparedness and Response (ASPR) Guidance and the Centers for Disease Control (CDC) Guidance, of January 2012 titled; “Health Care Preparedness Capabilities: National Guidance for Health Care System Preparedness”, and the Public Health Preparedness Capabilities contained in the Center for Disease Control and Prevention Guidance, of March 2011 titled; “Public Health Preparedness Capabilities: National Standards for State and Local Planning.”

Table 1: Exercise Objectives

<table>
<thead>
<tr>
<th>Exercise Objective</th>
<th>Preparedness Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exercise Objective #1</strong>: Discuss how healthcare/public health agencies maintain continuity of the healthcare delivery by coordinating across functional healthcare organizations and encouraging business continuity planning. This coordination assists healthcare organizations to sustain and reestablish essential services during and after an all hazards incident and enables a rapid and more effective recovery. <em>(Applicable HCCDA Factors # 11 and #14.)</em></td>
<td>#2 – Healthcare System Recovery</td>
</tr>
<tr>
<td><strong>Exercise Objective #2</strong>: Discuss how healthcare/public health agencies will coordinate with local and state agencies to share and disseminate Measles Virus incident related information <em>(Applicable HCCDA Factors #11 and #12)</em></td>
<td>#6 – Information Sharing</td>
</tr>
<tr>
<td><strong>Exercise Objective #3</strong>: Discuss how healthcare/public health agencies will continue to provide care during a Measles Virus incident that exceeds the limits of the normal medical infrastructure. <em>(Applicable HCCDA Factors #11, #12, and #14)</em></td>
<td>#10 – Medical Surge</td>
</tr>
</tbody>
</table>
The capability crosswalk in Table 2 describes the relationship between the public health and healthcare-related exercise objectives and the Core Capabilities, outlined by the National Preparedness Goal issued in September 2011.

<table>
<thead>
<tr>
<th>Capability</th>
<th>Program</th>
<th>Core Capability Crosswalk</th>
</tr>
</thead>
<tbody>
<tr>
<td>#6 – Information Sharing</td>
<td>HPP and PHEP</td>
<td>Operational Communications</td>
</tr>
<tr>
<td>#10 – Medical Surge</td>
<td>HPP and PHEP</td>
<td>Public Health and Medical Services</td>
</tr>
<tr>
<td>#2   - Healthcare System Recovery</td>
<td>HPP and PHEP</td>
<td>Planning (Continuity of Operations)</td>
</tr>
<tr>
<td>(Function 2: Continuity of Operations)</td>
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</tr>
</tbody>
</table>

### Participant Roles and Responsibilities

The term *participant* encompasses many groups of people, not just those playing in the exercise. Groups of participants involved in the exercise, and their respective roles and responsibilities, are as follows:

- **Players**: Players are personnel who have an active role in discussing or performing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to the simulated emergency.

- **Observers**: Observers do not directly participate in the exercise. However, they may support the development of player responses to the situation during the discussion by asking relevant questions or providing subject matter expertise.

- **Facilitators**: Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.

- **Evaluators**: Evaluators are assigned to observe and document certain objectives during the exercise. Their primary role is to document player discussions, including how and if those discussions conform to plans, policies, and procedures.
Exercise Structure

This exercise will be a multimedia, facilitated exercise. Players will participate in the following three modules:

- **Module 1: Initial Cases**
- **Module 2: Expanding Problem**
- **Module 3: Stretched Resources**

Each module begins with a situation update that summarizes key events occurring within that time period. After the updates, participants review the situation and engage in full group discussion of appropriate issues related to various response functions. For this exercise, the response functions/disciplines are as follows:

- Emergency Management
- Hospital and Health Care Organizations
- Schools/Educational Organizations
- Local/State Public Health Agencies
- Fire/ Emergency Medical Services
- Public Information Office

At the end of each module, participants will highlight and review critical issues related to the exercise objectives that were identified in the discussion.

Exercise Guidelines

- This exercise is designed to be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Respond to the scenario using your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from your training.
- Decisions are not precedent setting and may not reflect your organization’s final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions.
- Issue identification is not as valuable as suggestions and recommended actions that could improve health and safety, facility protection, information coordination, and response/recovery efforts. Problem-solving efforts should be the focus.
Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise, and should not allow these considerations to negatively impact their participation. During this exercise, the following apply:

- The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated.
- The exercise scenario is plausible, and events occur as they are presented.
- All players receive information at the same time.

Exercise Evaluation

Evaluation of the exercise is based on the exercise objectives and aligned capabilities, capability targets, and critical tasks, which are documented in Exercise Evaluation Guides (EEGs). Evaluators have EEGs for each of their assigned areas. Additionally, players will be asked to complete participant feedback forms at the end of the exercise. These documents will be used to evaluate the exercise and to complete the After Action Report/Improvement Plan (AAR/IP).
Measles History
(Sources: http://www.cdc.gov/measles/about/history.html)

**Pre Vaccine Era**
In the 9th century, a Persian doctor published one of the first written accounts of measles disease.

Francis Home, a Scottish physician, demonstrated in 1757 that measles is caused by an infectious agent in the blood of patients.

In 1912, measles became a nationally notifiable disease in the United States, requiring U.S. healthcare providers and laboratories to report all diagnosed cases. In the first decade of reporting, an average of 6,000 measles-related deaths were reported each year.

In the decade before 1963 when a vaccine became available, nearly all children got measles by the time they were 15 years of age. It is estimated 3 to 4 million people in the United States were infected each year. Also each year an estimated 400 to 500 people died, 48,000 were hospitalized, and 4,000 suffered encephalitis (swelling of the brain) from measles.

**Vaccine Development**
In 1954, John F. Enders and Dr. Thomas C. Peebles collected blood samples from several ill students during a measles outbreak in Boston, Massachusetts. They wanted to isolate the measles virus in the student’s blood and create a measles vaccine. They succeeded in isolating measles in 13-year-old David Edmonston’s blood.

In 1963, John Enders and colleagues transformed their Edmonston-B strain of measles virus into a vaccine and licensed it in the United States. In 1968, an improved and even weaker measles vaccine, developed by Maurice Hilleman and colleagues, began to be distributed. This vaccine, called the Edmonston-Enders (“Moraten”) strain has been the only measles vaccine used in the United States since 1968. Measles vaccine is usually combined with mumps and rubella (MMR), or combined with mumps, rubella and varicella (MMRV).

**Measles Elimination**
In 1978, CDC set a goal to eliminate measles from the United States by 1982. Although this goal was not met, widespread use of measles vaccine drastically reduced the disease rates. By 1981, the number of reported measles cases was 80% less compared with the previous year. However, a 1989 measles outbreak among vaccinated school-aged children prompted the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) to recommend a second dose of MMR vaccine for all children. Following widespread implementation of this recommendation and improvements in first-dose MMR vaccine coverage, reported measles cases declined even more.

Measles was declared eliminated (absence of continuous disease transmission for greater than 12 months) from the United States in 2000. This was possible thanks to a highly effective vaccination program and better measles control in the Americas region.
BACKGROUND INFORMATION (April 10, 2015)

“On January 5, 2015, the California Department of Public Health (CDPH) was notified about a suspected measles case. The patient was a hospitalized, unvaccinated child, aged 11 years with rash onset on December 28. The only notable travel history during the exposure period was a visit to one of two adjacent Disney theme parks located in Orange County, California. On the same day, CDPH received reports of four additional suspected measles cases in California residents and two in Utah residents, all of whom reported visiting one or both Disney theme parks during December 17–20. By January 7, seven California measles cases had been confirmed, and CDPH issued a press release and an Epidemic Information Exchange (Epi-X) notification to other states regarding this outbreak. Measles transmission is ongoing.”

As of April 10, 2015, 159 people from 18 states and the District of Columbia were reporting cases of the measles.

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1 Measles Outbreak – California, December 2014-February 2015, Morbidity and Mortality Weekly Report 2-20-15 (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6406a5.htm?s_cid=mm6406a5_w)
Measles Cases and Outbreaks
January 1 to April 10, 2015*

159 Cases
4 Outbreaks

reported in 18 states and the District of Columbia: Arizona, California, Colorado, Delaware, Georgia, Illinois, Michigan, Minnesota, Nebraska, New Jersey, New York, Nevada, Oklahoma, Pennsylvania, South Dakota, Texas, Utah, Washington

representing 91% of reported cases this year

*Provisional data reported to CDC's National Center for Immunization and Respiratory Diseases

- The majority of people who got measles were unvaccinated.
- Measles is still common in many parts of the world including some countries in Europe, Asia, the Pacific, and Africa.
- Travelers with measles continue to bring the disease into the U.S.
- Measles can spread when it reaches a community in the U.S. where groups of people are unvaccinated.
- Measles cases have been reported in visitors in Florida, which puts residents and visitors to Florida at risk of contracting the virus.
- Measles was confirmed in a Florida resident on April 15, 2015 in St. Lucie County, and continues to spread in southeast Florida.
MODULE 1: INITIAL CASES
(Day One – Five)

March 25, 2015 (Day 1) - Wednesday

Katie Hardy, a 17 year-old girl from Middleburg went to a family physician complaining of a cough, sore throat, runny nose, mild fever and achiness. The patient’s symptoms were in line with the flu that had been making its way through the community so the physician decided to collect a specimen. The rapid flu test came back as negative.

Katie Hardy was then sent home with the recommendation of lots of rest, food, and fluids over the next few days. If symptoms continue to persist more than a few days, schedule another appointment.

March 26, 2015 (Day 2) - Thursday

IMMEDIATE RELEASE – True News Bulletin from FDOH

MEASLES CASE IN INTERNATIONAL TRAVELER CONFIRMED IN OSEOLA COUNTY
~ Residents encouraged to remember vaccination is the best protection ~

TALLAHASSEE - The Florida Department of Health has confirmed measles in an adult international traveler who attended a conference in Kissimmee, Florida, at the Gaylord Palms Resort and Convention Center. The traveler spent time in several central and south Florida counties. Most of the traveler’s time was spent in Osceola County; however, the traveler also spent time in Miami-Dade, Orange and Sarasota during the infectious period of March 14-20, 2015. The traveler did not visit any theme parks during his visit. The traveler was hospitalized between March 20-24 in Miami and after recovery left Florida by plane on March 25.

The department continues to work closely with health care professionals and organizations in an effort to maintain its current level of readiness to identify cases and respond to any diagnosed cases of measles in Florida. The department is also working with the Centers for Disease Control and Prevention as well as the organizer of the international conference to notify all conference attendees as well as all other establishments the traveler visited while infectious to identify potentially exposed individuals. In addition, Florida Department of Health monitors emergency room and urgent care center visits in order to rapidly identify and respond to any possible cases of measles in the state.

March 28, 2015 (Day 4) - Saturday

Katie Hardy still feels under the weather. She notices that her eyes itch and are red. She is also beginning to get a reddish-brown rash near her hairline. In addition, her temperature has increased to 102.2 degrees. Katie and her parents are concerned at the onset of the new symptoms and decide it is time to take her to the emergency room at Baptist Clay Medical Campus in Fleming Island.
After her initial examination the doctor has concerns so he isolates her in an exam room. Thinking back to information received from CDC and the Florida Department of Health (FDOH), the physician remembers to consider measles virus. He calls the Infection Control Practitioner (ICP) at the hospital, who then calls the Florida Department of Health in Clay County and the hospital’s Emergency Preparedness Coordinator. Upon consultation with the FDOH, measles testing at the state lab is approved and specimens are collected for PCR. The specimen is couriered to the Bureau of Public Health Laboratories in Jacksonville, and the results are available that evening.

The PCR measles test comes back as positive for measles!

With confirmation of a positive measles test contact tracing begins.

Katie discloses that she recently returned from the Orlando area where she participated in a national cheerleading competition with the Middleburg High School Cheerleading Team. Approximately 40 people went on the trip which included stops at local theme parks, and they returned on Sunday, March 15th.

The cheerleading team and chaperones all stayed at the Gaylord Palms Resort and Convention Center in Kissimmee, Florida March 13-15, 2015.

Katie is not showing any signs of complications from the measles, and is sent home to get well.

**March 29, 2015 (Day 5) - Sunday**

News of Katie’s positive measles test quickly makes its way to the Cheer-mother’s phone tree, and the word goes out quickly that Katie has the measles. This is worrying news because three (3) other girls on the squad, and two (2) adults who chaperoned, are reporting similar symptoms of a sore throat, cough, watery/reddish eyes, and elevated temperature. None had a rash but the news prompted them to get checked out by a medical professional.

All five people showing similar symptoms go to various medical facilities. Two (2) girls go to the Orange Park Medical Center; one (1) girl and one (1) adult go to St. Vincent’s Medical Center in Middleburg; and one (1) adult goes to Care Spot Express Healthcare Center in Middleburg (operated by Baptist Health).

Measles tests confirm that three (3) of the people have contracted the virus. Those that went to Orange Park Medical Center and the Care Spot location tested positive, while the remaining tested positive for the flu virus.
It has been officially confirmed that four (4) people in Clay County has been diagnosed with the measles virus.

Clay DOH Epidemiology has been notified of the cases within the county and has reached out to their regional counterparts.

Local news has caught wind of the confirmed cases in Clay County and it is all over the local airwaves.

2 Confirmed New Measles Cases – Orange Park Medical Center
1 Confirmed New Measles Case – Care Spot Middleburg

2 Flu Cases – St. Vincent’s Clay County
March 30, 2015 (Day 6) - Monday

FDOH staff has completed their initial investigative work on where the Clay County infected people have been since they became contagious. The contagious time period began on Tuesday, March 24th.

The virus is highly contagious and one person can infect up to 18 people, and 90% of those that are unvaccinated will get the measles.

They have identified several places that people may have come into contact with those that were in the contagious period with the measles virus. Highlighted below are major areas of concern due to high population counts.

- Cheerleading Team worked a refreshment stand at the St. Augustine Lions Seafood Festival over the weekend to raise money for their team. The infected and contagious individuals worked a couple of 4 hour shifts.

- An infected and contagious parent and daughter shopped multiple places within the St. Johns Town Center in Jacksonville, spending approximately 4 hours shopping and eating.

- The infected and contagious students attended classes at Middleburg High School after returning from Orlando. Students may have come into contact with individuals for 4 straight days (March 24-27).

Key Issues

- Four people have gone to various medical facilities in Clay County and have confirmed measles cases
- CHD, DOH and CDC authorities have been notified and are following emergency operations plans, policies and procedures.
- It is suspected that these cases are linked to the recent traveler highlighted in the FDOH news bulletin. The infected traveler and the cheerleading team stayed at the Gaylord Palms Resort and Convention Center in Kissimmee, Florida at the same time.
- Clay County infected and contagious individuals have led normal lives over the last 10 days. The girls attended school, participated in extra-curricular activities, and did some babysitting for local families. The adults have gone to work and attended some public events with friends.
- Children and siblings of infected people go to other middle and elementary schools within the district.
- Unknown number of citizens potentially exposed. Symptoms do not appear until 7-21 days after initial exposure.
- This is a highly infectious disease that has the ability to infect 90% of those people who do not have a measles vaccination.
- Staff who will provide direct care to the suspect patient must be familiar with procedures for infectious disease PPE.
Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 1. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

The following questions are provided as suggested subjects that may be addressed as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

Hospital and Healthcare Organizations

1. Would this trigger the activation of the hospital’s emergency response plan?
2. What actions would the hospital take in response to this situation, related to?
   • Activation of appropriate plans?
   • Special precautions for staff (those who have been in contact with the patients as well as general staff members)?
   • Alert and notification of hospital staff?
   • Alert and notification of outside agencies?
   • Preparations for more patients with measles virus?
3. What special precautions will be in place for hospital staff assigned to treat the patient?
4. Who are you notifying and what type of information is being passed along? What type of information would you be conveying to partners such as the Healthcare Coalition?
5. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Public Health

1. What actions would the CHD take at this point?
2. Who would be notified and how? How will information be disseminated?
3. How will the CHD assist the hospital?
4. Is there a risk for other family members or others who have come in contact with the patients? How is this mitigated?
5. Would there be a public health emergency declaration? What are the conditions that would determine this?
6. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
Emergency Management

1. What actions would Emergency Management take at this point?
2. What are the information needs of Emergency Management?
3. Who would gather the information and who would it be shared with?
4. What resource assets would Emergency Management help manage?
5. Would a recommendation for a declaration of a local emergency be made at this point?
6. What challenges does Emergency Management have at this point?
7. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Fire/Emergency Medical Services

1. What actions would Fire/EMS take at this point?
2. Would dispatchers be instructed to include additional screening questions? Would dispatchers be instructed to restrict the use of certain words?
3. Is there a protocol for transport of a suspected measles case? If so, does it take into consideration transportation of family members in suspect infectious disease cases?
4. Are any changes being made to PPE protocols in response to this situation?
5. What concerns do you have at this point?
6. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Public Information

1. What actions would Public Information take at this point?
2. Would a Joint Information Center (JIC) be opened at this point? If so, what agencies would be asked to staff the JIC?
3. In the current climate, what is your expectation on the public’s reaction?
4. How would Public Information mitigate public perception?
5. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
Schools

1. What would Clay County School District be doing at this time? What would the other school districts in the region be doing at this time?

2. What precautions are being implemented?

3. What information is being passed along to parents, particularly those with children at Middleburg High School?

4. Are unvaccinated children being allowed to attend?

5. How are you dealing with siblings of the infected that attend other schools within the district?

6. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
April 6, 2015 (Day 13) - Monday

There haven’t been any new reports of the measles in the region since the initial 4 people were diagnosed in Clay County approximately 8 days ago. Health officials anticipated a lag effect in new cases due to the 7 to 21 day (median= 10-11 days) incubation time for measles. They have now entered the time period where new cases may start popping up in the population.

The population in the northeast Florida region averages about 93% vaccinated for MMR. Rates of infection at this vaccination rate will average approximately 2 new cases per infected individual every 10 days. Based on this rough calculation this is what the outbreak could look like in northeast Florida.

<table>
<thead>
<tr>
<th>Days from Initial Measles Diagnosis</th>
<th># with Measles</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>20</td>
<td>16</td>
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<td>80</td>
<td>1,024</td>
</tr>
<tr>
<td>90</td>
<td>2,048</td>
</tr>
<tr>
<td>100</td>
<td>4,096</td>
</tr>
</tbody>
</table>


Note: People vaccinated with the MMR vaccination take approximately 4 to 5 weeks (28-35 days) to gain immunity.

April 7, 2015 (Day 14) - Tuesday

A family of three has walked into the Baker County Health Department facility in Macclenny complaining of flu like symptoms. The family meets with the medical staff and a rapid flu test is given to the sick people. All three rapid flu tests come back negative.

Upon consultation with the FDOH, measles testing at the state lab is approved and specimens are collected for PCR. The specimen is couriered to the Bureau of Public Health Laboratories in Jacksonville, and all three tests come back positive for measles. No one in the family had been vaccinated.

Two private physicians in St. Augustine reported having examined people suspected of having the measles. They were sent to Flagler Hospital for further evaluation.
Two children that attend Julington Creek Elementary School in St. Johns County have been lab confirmed with measles, and have been admitted to Baptist South Medical Center with complications associated to the measles (dehydration and diarrhea). One child was never vaccinated, and the other child received the initial MMR but not the second immunization.

Based upon the reports coming in from throughout the northeast Florida region, DOH is highly concerned that a major measles outbreak has begun. It is clear based on reports from the previous day that secondary cases are being identified.

News of the new cases hit the media sources like wildfire, and a bit of hysteria has begun among the general population.

**April 8, 2015 – Wednesday to April 12, 2015 – Sunday (Days 15-19)**

Three people in Fernandina Beach have been confirmed to have the measles. One adult male came into the emergency room at Baptist Medical Center Nassau with an emerging body rash. One person has been confirmed at the Nassau County Health Department, and another confirmed at the Care Spot Urgent Care in Yulee.

Florida Hospital Flagler in Palm Coast has admitted a pregnant mother and her 3-year old son with severe complications from the measles. The mother is suffering from pneumonia and there is fear she may have a premature birth, and the son is suffering from what appears to be encephalitis (swelling of the brain).

Two brothers who attend Douglas Anderson High School in Duval County have been diagnosed with measles at St. Vincent’s Medical Center in Riverside. Both were sent home to get well.

Five more measles cases have been reported in the student population at Middleburg High School, and three children at Tynes and Coppergate Elementary Schools in Clay County have tested positive for measles.

Two cases have been confirmed in kids that attend R.B Hunt Elementary in St. Augustine. Both of the kids went to Baptist South Medical Center and then were sent home to get well.

News of the additional cases has parents worried about sending their kids to school or to after-schools activities and sports. The school week begins tomorrow (Monday) and parents are unsure what to do.

The National news media has caught wind of this emerging story and have begun reporting on the “2015 Florida Measles Outbreak.” News trucks and reporters have begun showing up to hospitals, departments of health, and schools asking questions regarding the measles outbreak.

Public information about being vaccinated for the measles is being pushed out through all available channels. People are being encouraged to get vaccinated.
Key Issues

- There was an initial lag in new measles cases but more than 24 new cases have been reported at various places within the northeast Florida region. This brings the total number of measles cases to 28.
  - Cases have been reported in Baker, Clay, Duval, Flagler, Nassau, and St. Johns Counties

- Children under 18 are the most impacted group of people.
• Based on vaccination rates in the area it has been determined that the region is poised to see many new cases in the near future. One calculation reports as many as 256 people may be infected within 60 days.

• Schools in Clay and St. Johns counties are reporting sick children, and parents are starting to point fingers and ask questions.

• National News Media has arrived in force.

Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 2. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

The following questions are provided as suggested subjects that may be addressed as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

Hospital and Healthcare Organizations

1. Has the hospital’s response changed, in relation to level of activation, hospital organization, operational period(s), or objectives? How will you perform other critical hospital functions? What will you do now to prepare for more measles cases?

2. How will you prepare for a possible influx of sick persons/worried well? Will you consider activating your surge plans? What is the protocol for doing so?

3. Will your infection control precautions or triage process change?

4. What roles will other healthcare organizations, such as pharmacies, medical equipment, behavior health and long-term healthcare facilities play? Will your services be impacted? What resources can you provide to the hospital and/or the public?

5. How will the hospital acquire additional PPE and other critical resources? Does the hospital have an airborne isolation room?

6. Has your facility decontaminated the Emergency Department? If so, which other parts of the facility require decontamination? Does decontamination guidance include issues for DOH Environmental Health staff to consult?

7. Will hospital staff providing direct care to the confirmed cases be authorized to use public transportation? How will other work duties need to be changed for those providing direct care?

8. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
Public Health

1. How will local, regional and state public health authorities coordinate and work with each other and the hospital to get needed information from the hospital? Is staff prepared to work effectively in the field (staff availability, documentation of immunity, PPE)?

2. Would the situation warrant opening a Point of Dispensing (POD) or equivalent to administer MMR vaccine?

3. How would monitoring of close contacts outside the hospital be accomplished? Would isolation or quarantine orders be considered for the hospitalized patients or their contacts? If so, how would those be issued and enforced?

4. How will communication with other healthcare providers in the region be conducted? What will be the messages for other hospitals? Who will coordinate with other county and discipline members of the Northeast Florida Healthcare Coalition?

5. How is epidemiology staff communicating with the hospital staff? Will the epidemiologists be required to monitor all of the hospital and first responder staff?

6. Are there any resources available from Healthcare Coalition partners? How would you find out?

7. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Emergency Management

1. What actions would Emergency Management take at this point?

2. What is the state’s and/or local jurisdiction’s policy on isolation and quarantine?

3. Who would provide logistical support to those potentially exposed contacts under isolation or quarantine?

4. Have EM and DOH discussed implementing a POD for MMR vaccination?

5. The National and local news agencies are traversing your County. What is being done to deliver timely and relevant information?

6. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Fire/Emergency Medical Services

1. What is the process for notifying any other patients who may have been transported in contaminated units (up to 2 hours after the measles patient)?
2. What is in place for the notification and education of the entire staff related to the current situation?

3. What resources are available that can be used for PPE in the rescue unit? How will first responders be protected from persons with measles?

4. How will the ambulance be decontaminated or will it be taken out of service?

5. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Public Information Office

1. What protocols are in place to minimize negative public perception?

2. What are the sources for your information?

3. What social media is being monitored at this point? Is there a mechanism in place to measure public perception?

4. Will claims in social media be considered for investigation? If so, how will information be shared with epidemiologists and other CHD staff?

5. What would be your top three talking points to convey to the National and local media sources?

6. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

Schools

1. What decisions are specifically being considered and made at this point? Are schools remaining open?

2. What is being done about unvaccinated students or school district staff?

3. What messages are being conveyed to worried parents?

4. What assistance do you need at this point, and what can Healthcare Coalition partners do to assist you in meeting your needs?

5. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
MODULE 3: Stretched Resources
(Days 20 - 70)

April 13, 2015 - Monday to May 2, 2015 – Tuesday (Days 20 – 70)

Area hospitals, DOH clinics, urgent care clinics, and private physicians are experiencing increasing patient loads. A vast majority is the worried well or those with other ailments/sicknesses attributable to the flu. With that being said, 280 new cases of the measles have been confirmed. This is less than the 512 expected cases highlighted in the previous stated methodology but still a substantial set of new cases.

All of the counties in the northeast Florida region are heavily impacted by this outbreak. The heaviest pockets of new emerging cases are in Jacksonville (Southside), Julington Creek and Fruit Cove areas in St. Johns County, and Palm Coast in Flagler County.

Other hot spots are in Fernandina Beach, Macclenny, Keystone Heights, and Green Cove Springs.

It is clear that public messaging about getting the MMR vaccination and other precautionary recommendations are working.

Healthcare entities report having lines of people coming in and getting vaccinated. The MMR vaccination takes 4-5 weeks to take affect so there is an expected lag in people's immunities to prevent future cases of measles.

These types of preventative measures will take place until no new cases have been reported for at least 42 days in a row (2 incubation cycles). With 280 new cases, it will be some time before the outbreak is contained and 42 days go by without a new case.
Key Issues

- 280 new cases have emerged throughout the region. Everyone is being impacted by this outbreak. Manpower and resources are so stretched that all disciplines are asking for more resources and assistance to continue meeting their mission.

- Preventative measures are clearly working since the total number of cases is rough 60% of what as expected, but this is still the largest outbreak in the Unites States at the current time.

- This outbreak will to have new cases emerge for months into the future. The outbreak will not be deemed clear until there are 42 consecutive days without a new case in the population.
Questions

Based on the information provided, participate in the discussion concerning the issues raised in Module 3. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

The following questions are provided as suggested subjects that may be addressed as the discussion progresses. These questions are not meant to constitute a definitive list of concerns to be addressed, nor is there a requirement to address every question.

**Hospital and Healthcare Organizations**

1. Has the evolving situation exhausted any of your resources? If so, which ones and how will you acquire additional resources?

2. Can the hospital require staff to work?

3. What level of operations can the hospital maintain with staff absenteeism rising? What services might be impacted?

4. What support will be provided for the hospital staff and their families?

5. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

**Public Health**

1. What staff education will be provided for public health employees?

2. Will public health assist with surge capacity staffing through ESF-8 deployed staff or through existing MOUs?

3. What information will be provided to members of the Northeast Florida Healthcare Coalition?

4. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

**Emergency Management**

1. How will Emergency Management support the hospital and healthcare facilities?

2. Since more locally transmitted cases were reported, what would be your top priorities?

3. Who would be responsible for public and private facility decontamination?
4. Does Emergency Management have a plan to assist local businesses that may be impacted?

5. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

**Fire/ Emergency Medical Services**

1. How will Fire/ EMS be monitoring staff with possible contact during calls with potential measles patients? What will the triggers be for Fire/ EMS to report possible exposures?

2. How will Fire/ EMS handle the psychological effects of staff that face ‘unknown’, less controlled environments on a daily basis?

3. How will Fire/ EMS handle the interruption in services due to ER diversions as a result of a possible exposure event within that ER?

4. Will Fire/ EMS staff be paid if forced to be in quarantine due to possible exposure?

5. What support will be provided for the Fire/ EMS staff families?

6. Are you able to continue full operations with staff absenteeism rising? How would you acquire additional resources?

7. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?

**Public Information Office**

1. How will PIOs assure quick response to inflammatory rumors within the community? Will PIOs be responsible for providing vital information to staff members?

2. Does the PIO office have enough staff redundancy to provide services over the extended period that the patients are being treated and in the event of patient’s deaths? If the JIC has been activated, what is its role?

3. How will the PIO assist healthcare agencies in protecting patient privacy and complying with federal regulations?

4. What education will be provided to PIO office staff members to allow knowledgeable development of a public statement release?

5. Will the PIO office provide psychological support to staff members who may begin to worry about their own safety?

6. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
**Schools**

1. What decisions are specifically being considered and made at this point? What are schools doing in the face of a health crisis?

2. What is being done about unvaccinated students or school district staff?

3. What messages are being conveyed to worried parents?

4. What is being done for students that can’t or don’t want to come back to school? What services are in place to maintain the education system?

5. What other decisions are being considered?

6. What assistance do you need at this point, and what can Healthcare Coalition partners do to assist you in meeting your needs?

7. Do you have expectations of the Healthcare Coalition at this point? If so, what are those expectations?
**APPENDIX A: EXERCISE AGENDA**

<table>
<thead>
<tr>
<th>DATE and TIME</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, April 29, 2014 from 1:00 p.m. – 4:30 p.m.</td>
<td></td>
</tr>
<tr>
<td>1:00 pm – 1:15 pm</td>
<td>Welcome and Introductions</td>
</tr>
<tr>
<td>1:15 pm – 1:30 pm</td>
<td>EPI Overview</td>
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<tr>
<td>1:30 pm – 1:45 pm</td>
<td>Exercise Briefing</td>
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<tr>
<td>1:45 pm – 2:20 pm</td>
<td>START EX - Module 1: Initial Case</td>
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<tr>
<td>2:20 pm – 2:30 pm</td>
<td>Break</td>
</tr>
<tr>
<td>2:30 pm – 3:10 pm</td>
<td>Module 2: Expanding Problem</td>
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<tr>
<td>3:10 pm – 3:20 pm</td>
<td>Break</td>
</tr>
<tr>
<td>3:20 pm – 4:00 pm</td>
<td>Module 3: Stretched Resources</td>
</tr>
<tr>
<td>4:00 pm – 4:30 pm</td>
<td>Hot Wash &amp; Participant Evaluation</td>
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APPENDIX B: MEASLES AND THE MMR SHOT

Measles & the MMR Shot

FloridaHealth.gov · Florida Department of Health

Measles is a respiratory disease. Measles affects the lungs and breathing tubes. It causes fever, cough, and rash. Measles is very contagious, and can be deadly.

Measles remains common outside of the U.S.—it is only a plane ride away.

Measles can be serious. Measles can be serious, especially for babies and young children. From 2001–2015, 28% of children younger than 5 years old who had measles had to be treated in the hospital.

For some children, measles can lead to:
- Pneumonia, a serious lung infection
- Lifelong brain damage
- Deafness
- Death

Measles is very contagious.
- Measles spreads when an infected person breathes, coughs or sneezes.
- You can catch measles just by being in a room where an infected person has been—even up to 2 hours after that person has left.
- A person with rash or cough illness should wear a mask when seeking health care.
- Almost everyone who has not had the MMR shot will get measles if they are exposed.

The MMR shot is the best way to protect against measles.

The measles, mumps and rubella (MMR) shot:
- Protects your child from measles, mumps and rubella.
- Keeps your child from missing school and keeps you from missing work to care for your sick child.
- Helps keep your community and neighbors safe from measles.

The MMR shot is safe.

The MMR shot is effective at preventing measles, mumps and rubella.

Shots, like any medicine, may have side effects. Side effects of the MMR shot are usually mild, such as fever or a minor rash.

The MMR shot is almost 100% effective at preventing measles.

Adults may also need an MMR shot.

Talk to your health care provider if you have questions about the MMR shot or measles.

LEARN MORE ABOUT THE MMR SHOT: contact your county health department or visit FloridaHealth.gov

01/06/16
**APPENDIX C: IDENTIFICATION & MANAGEMENT OF CASES**

**Measles: Identification and Management of Suspected Cases**

*Version 1.0, February 13, 2015 – Please note this interim guidance is subject to change.*

---

### Do You Suspect Measles?

- Febrile rash illness, **AND**
- Risk factors for measles (history of international travel, contact with travelers or links to a known outbreak or case, or no or unknown vaccine or immunity).
- **Note** that one dose of measles vaccine is about 93% effective at preventing measles.

### Minimize Risk of Transmission

- Measles is a highly infectious airborne illness.
- Identify febrile rash illnesses prior to, or immediately upon, arrival to expedite evaluation in a private room and minimize patient exposures:
  - Have the patient avoid the waiting room (use a side/behind entrance).
  - Have the patient wear a surgical mask.
  - Conduct patient evaluation in a room that can be left vacant for at least 2 hours after the patient's visit.

### Does the patient meet the measles clinical case definition?

An illness with **BOTH** a generalized descending maculopapular rash **AND** a fever (at least 101°F) during the illness **AND** at least one of the following:

- Cough
- Coryza
- Conjunctivitis
- Koplik spots (may not be present).

**Call Immediately**

Call the County Health Department 24/7 (www.floridahealth.gov/CHDEpiContact) or Bureau of Epidemiology (850-245-4401)

### Laboratory Testing

- Nasopharyngeal (NP) or oropharyngeal (OP) swab* in universal viral transport media for measles RT-PCR
  **AND**
  - Urine* in a sterile cup for measles RT-PCR**
  **AND**
  - Serum for measles specific IgG and IgM***

*Preferred specimen:

**Measles RT-PCR is not available at commercial laboratories and is available at the Bureau of Public Health Laboratories, after prior authorization by the County Health Department.

***Serum specimen should be collected b72 hours after rash onset. In a vaccinated patient, a negative measles IgM does NOT exclude measles. RT-PCR is preferred.

### Suspect Case Management

- Isolate patient immediately
- Exclude from childcare/school/workplace for at least 4 days after the onset of rash.
- Reassess isolation based on diagnosis.
- Provide supportive treatment and treatment of complications.

---

### Call Immediately

Call the County Health Department 24/7 (www.floridahealth.gov/CHDEpiContact) or Bureau of Epidemiology (850-245-4401)

### Immunization is the key to prevention

- Review the measles vaccination/immunity status of patients and staff at your practice.
- See Centers for Disease Control and Prevention vaccination recommendations http://www.cdc.gov/vaccines

### Further Questions?

Contact your County Health Department 24/7 (www.floridahealth.gov/CHDEpiContact) or Bureau of Epidemiology (850-245-4401).

www.cdc.gov/measles
## APPENDIX D: INITIAL MEASLES EXPOSURE TIMELINE

### March 2015

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
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<td>29</td>
<td>30</td>
<td>31</td>
<td>April 1</td>
<td>April 2</td>
<td>April 3</td>
<td>April 4</td>
</tr>
</tbody>
</table>

- **Potential Exposure Period**
  - Student Travel (EXPOSURE)
  - (EXPOSURE)
  - Katie Hardy Sick
  - KH Contagious
  - April 1
  - April 2
  - April 3
  - April 4

- **Incubation 7-21 days**
- **Prodrome 2-4 days**
## APPENDIX E: ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Term</th>
</tr>
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<tbody>
<tr>
<td>AAR</td>
<td>After Action Report</td>
</tr>
<tr>
<td>ASTHO</td>
<td>Association of State and Territorial Health Officials</td>
</tr>
<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CHD</td>
<td>County Health Department</td>
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<tr>
<td>DOH</td>
<td>Department of Health (Florida)</td>
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<tr>
<td>DHS</td>
<td>U.S. Department of Homeland Security</td>
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<tr>
<td>EEG</td>
<td>Exercise Evaluation Guide</td>
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<tr>
<td>EIS</td>
<td>Epidemic Intelligence Service</td>
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<tr>
<td>EM</td>
<td>Emergency Management</td>
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<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
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<tr>
<td>EOC</td>
<td>Emergency Operations Center</td>
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<tr>
<td>HAN</td>
<td>Health Alert Network</td>
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<tr>
<td>HCC</td>
<td>Health Care Coalition</td>
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<tr>
<td>HCCDA</td>
<td>Health Care Coalition Development Assessment</td>
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<tr>
<td>HICS</td>
<td>Hospital Incident Command System</td>
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<tr>
<td>HPP</td>
<td>Hospital Preparedness Program</td>
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<td>HSEEP</td>
<td>Homeland Security Exercise and Evaluation Program</td>
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<tr>
<td>ICC</td>
<td>Incident Command Center</td>
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<td>Infection Control Practitioner</td>
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<td>Incident Management Team</td>
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<td>NEFLHCC</td>
<td>Northeast Florida Healthcare Coalition</td>
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<tr>
<td>PHEP</td>
<td>Public Health Emergency Preparedness</td>
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<td>Public Information Officer</td>
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<td>Personal Protective Equipment</td>
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<td>Person Under Investigation</td>
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<tr>
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<td>Situation Manual</td>
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<tr>
<td>SME</td>
<td>Subject Matter Expert</td>
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<tr>
<td>TTX</td>
<td>Tabletop Exercise</td>
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