Using Incident Command System in Foodborne Outbreak Response

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Office of Epidemiology
Objectives

- Review key concepts of the National Incident Management System (NIMS) and Incident Command System (ICS)
- Illustrate how ICS can be used to coordinate a foodborne outbreak response of any size
- Discuss challenges related to using ICS in public health
Assumptions

- Some level of NIMS training
- Has participated in or may participate in infectious disease emergency response
- Come from agencies have varying degrees of capacity, authority, resources, operation and structure
What FEMA says about NIMS

- NIMS is a comprehensive, national approach to incident management
- NIMS provides the template for incident management, regardless of cause, size, location, or complexity
- NIMS is applicable at all jurisdictional levels and across functional disciplines
What does public health say?
So Why Do It?
SNHD Experience

- Problem in foodborne outbreak coordination
- Response requires staff from 3 offices, 2 divisions who are managed by: 2 directors, 3 managers, 2 supervisors
- Nobody knew each other
- Solution - FIT = Foodborne Illness Team
- Planning and response functions
- Integrates NIMS/ICS
  - Example: Incident types
# ICS and Public Health: A Good Match

**ICS**

- A wide range of tasks is necessary in any incident response
- Allows for coordination of multiple agencies and types of response personnel
- Scalable - may be used to manage routine events or to manage disasters, and for any type of event in between

**Public Health Incidents**

- Vary in size, scope and complexity
- Require diverse skill sets to accomplish wide range of tasks
- Incidents may be routine or emergent
ICS and Public Health: A Good Match

- Provides a set of critical processes that help maximize response capacity
- Management by objectives and task based
- Uses common terminology
- Establishes functional roles with clear responsibilities
- Easily adapted to rapidly changing situation

Ultimate Goal – move from reacting to, to managing an incident
Using ICS to coordinate a Foodborne Illness Outbreak

Salmonellosis Outbreak Associated with a Tapas Restaurant, Las Vegas, NV, April 2013
Planning “P” and Initial Response

- Preparing for the Planning Meeting
- Tactics Meeting
- IC/UC Sets Objectives
- Execute Plan & Assess Progress
- IAP Prep & Approval
- Operations Briefing
- New Start Ops Period Begins
- Operational Period Planning Cycle

- Initial IC/UC Meeting
- Incident Briefing ICS 201
- Initial Response & Assessment
- Notification
- Incident/Threat

Initial Response
Initial Response

- Person who takes report is the 1st incident commander
- Command may be transferred before initial
- Collect information to confirm possible outbreak
- Form 201
- Incident Briefing
Incident Briefing

- Background information
- Determine command structure
  - Type – Single, multiple, unified
  - Incident Commander(s)
  - Command and General Staff
- Preliminary Resource Determination
- Assignments by management
Incident Management Team

- Incident Commander
  - Public Information Officer
  - Liaison Officer
  - Safety Officer
  - COOP
  - Planning Section
  - Operations Section
  - Logistics Section
  - Finance Section
Develop an Incident Action Plan

- What - objectives
- How – strategy and tactics
- How many - resources
- When - report
- By When – set op period
- Where – facilities, geographic, staging
Operations

- Incident Commander/ Ops
- Investigation Unit
  - EH Field Team
  - Lab Testing Team
- Public Information Officer
Planning “P” and Initial Response

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- Notification

- Planning Meeting
- IAP Prep & Approval
- Operations Briefing
- New Start Ops Period Begins
- Execute Plan & Assess Progress

- Operational Period Planning Cycle
Revise Incident Action Plan
Planning “P” and Initial Response

- Preparing for the Planning Meeting
- Planning Meeting
- IAP Prep & Approval
- Operations Briefing
- New Start Ops Period Begins
- Execute Plan & Assess Progress
- Operational Period Planning Cycle
Achieves Command's objectives through execution of tactics.
Epi and Surveillance
Lab Testing
Data Branch

Epidemic Curve of Gastrointestinal Illness Associated with Eating at Firefly Restaurant (Paradise Road) on April 21–26, 2013 — Las Vegas, Nevada (n=294)

- 8 Groups Reported Illness After Eating at Firefly
- Restaurant Closure Issued by SNHD

Odds Ratio (OR)

\[
\text{OR} = \frac{(a/c)}{(b/d)} = \frac{(a*d)}{(b*c)}
\]

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<td>b</td>
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<tr>
<td>Unexposed</td>
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<td>a+c</td>
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<td>a+b+c+d</td>
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Cases verified through May 20, 2013
*Includes 4 restaurant employees, 3 of whom had confirmed cases of illness
## Environmental Health

### Food Establishment Inspection

**SOUTHERN NEVADA HEALTH DISTRICT**

**FOOD ESTABLISHMENT INSPECTION**

330 SOUTH VALLEY VIEW BLVD • LAS VEGAS, NV • 89107 • 702-759-0588 (DIRECT) • 702-759-1000 (24 HOURS)

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**ADDRESS:**
3900 S Paradise RD STE A
Las Vegas, NV 89169-0931

**NEVADA CLEAN INDOOR AIR ACT:**
COMPLIANCE REQUIRED: ☐ EXEMPT

**CONTACT PERSON:** Ramon Tray #81-5041

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<th>TIME OUT</th>
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<th>GRADE</th>
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<td>30</td>
<td>44</td>
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**OPEN TIME**

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<td>100</td>
<td>M</td>
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**SPECIAL NOTES:** WAS DRAGONFLY

**NAME:**
3900 S Paradise Rd Ste A

**ADDRESS IS CLOSED FOR VIOLATION:**

44 Demerits on routine inspection

8-30-11 (SNHD)

**NOTICE:**
This establishment is closed until found to be complying with the rules and regulations of the Southern Nevada Health District.

**Health Hazards - Notify SNHD and:**

![Image of health hazards and a person in a laboratory setting]
Information and Guidance
Public information – media inquiries.
Planning

- Documentation Unit
- Situation Unit
- Resource Unit
- Technical Specialists Unit
- Demobilization Unit

Supports Command and Operations.

Forms, forms, forms.

Collects and distributes 214 (unit logs) and incident action plan.

Allows operations staff to focus on tasks related to response objectives.

Projects and procures resources for next op period.
Logistics

Human Resources Unit

Supplies Unit

Facilities Unit

Communications Equipment Unit

Information Technology Unit

What do you need?
More people?
More stuff?

Interviewers
Workstations
Office
Phones
Food
Steps in a Foodborne Outbreak Investigation

1. Detecting a possible outbreak
2. Defining and finding cases
3. Generating hypotheses
   - Hypothesis-generating interviews
4. Testing the hypotheses
   - Analytic studies
   - Laboratory testing of samples
5. Finding the point of contamination and source of the food
6. Controlling an outbreak
   - Recall product(s)
   - Remove source of contamination
   - Revise production process
7. Deciding an outbreak is over
   - Unsolved mystery

If cases continue
- Finding associations between food & illness
- Not finding associations between food & illness

Cases stop
Tasks can be grouped by category.
Manage by Objectives
Scale to fit – type, number, time, place.
WRONG WAY
GO BACK

HEALTH ALERT
Why Use Incident Command System

- Decreased confusion among responders due to coordination of response actions.
- It’s the difference between reacting and managing.
- It is not a guide to how to investigate – rather a framework on how to coordinate a response and manage resources.
Challenges

• Working outside normal duties
• Reporting to different “supervisors”
• Maintaining regular job function/duties
• Planning ahead while doing
• Not enough personnel resources
Recommendations

- Identify key personnel in each area – include OPHP
- Regular planning meetings
- Ensure buy-in from all to use ICS for incident response
- Train staff at all levels on regular basis
- Use support staff
- Consider deputy positions
- Written plans and procedures – include COOP
- Evaluate and draft improvement plans
Feel any better?
Thank You.

Contact information:
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