

# **Field Investigations: A State Perspective**

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## **Background: Tennessee**

- **Tennessee shares its border with 8 States**
- **95 counties, each with a county health department**
- **89 of 95 counties grouped into one of 7 (“rural”) regions**
- **6 are Metro regions**
- **Each of the 13 regions has at least 1 epidemiologist**

# Outbreak Management

- **Aim:**

**Contain or control the outbreak, thereby minimizing morbidity, mortality and disruption to daily life**

**Prevent similar outbreaks in the future**

**Detect outbreaks early**

**Relationships with clinicians, infection control practitioners**

# Essential Ingredients to Control an Outbreak

- **Agent**
  - Clinical syndrome → suspected agent
  - Laboratory confirmation (the earlier the better)
- **Mode of transmission**
  - (known agent, or derive from the epidemiology)
  - Person to person (airborne, droplet, contact)
  - Environment (e.g. legionella, anthrax)
- **Source/Vehicle (epidemiology)**
  - Person (index case/ additional cases)
  - Product (local contamination or National)

# Control of an Outbreak

- **Interrupt exposure**
  - **Self-limited (e.g., food contamination at church picnic)**
  - **Distribution of contaminated product (trace-back, trace-forward)**
  - **Isolation of infectious persons**
  - **Mitigate effects**
    - **Prophylaxis for those exposed but not sick**
    - **Early, effective treatment of symptomatic persons**

# Control of an Outbreak

- **Manage outbreak of fear**
  - Unknown agent, exotic, affects children
  - Effective communication:  
“Be first, be right, be credible”  
Allow everyone to do something constructive
- **Prevent future outbreaks**
  - Recall of contaminated product (trace-forwards, trace-backs)
  - Examine processes
  - Recommendations
  - Publication/ dissemination of information

# The Local Staff

- Do the “real work”: where the rubber meets the road
  - Detailed interview of first few cases: hypothesis generating questionnaire
  - Identify potential cases, interview them, ensure appropriate care is given & follow up “**case management**”
  - Identify contacts & follow-up “**contact tracing**”

# Outbreak Management

- **Role of central office**
  - **Support the regions:**
    - (i) communication & coordination**
    - (ii) capacity/ resources**

# Coordination & Communication

- **Between different jurisdictions:  
Regions, adjoining States/ federal  
agencies (e.g., CDC/ FDA/ USDA)**
- **Provide information to general  
public/ media/ healthcare workers/  
stakeholders/ elected officials**
  - Detailed line-listings
  - Aggregate data (e.g., how many in  
isolation/ hospitalized)

# Coordination & Communication

- Provide subject matter expertise, advice on epidemiologic methods, data management, data analyses
- Common questions from regions:
  - Is this an outbreak?
  - Should we investigate further?
  - What kind/level of investigation is warranted? (how much time & effort)

# Coordination & Communication

- **Laboratory specimens/results (State health department labs & CDC labs)**
- **Countermeasures (obtaining sufficient supplies/ logistics)**
  - Vaccination (e.g., meningococcal vaccine)
  - Prophylaxis (e.g., rifampin)
  - Isolation/quarantine

# Capacity

- **Ensure sufficient resources are available :**
  - **Physical resources (swabs for lab. specimens, masks)**
  - **Manpower (with skills that match the needs of the situation– contact tracing/ data management)**

# Capacity

- **Ensure sufficient resources are available:**
  - **Data management**
    - **Keep accurate records (including changes in risk categorization over time for contacts)**
    - **Ensure complete, timely follow-up (esp. contact tracing)**
    - **Generate reports (line listings, summary/aggregate reports)**
    - **Analyses: etiologic agent/ source/ vehicle, epi-curve**

# Capacity

- **Every outbreak is an opportunity to build capacity....**
  - **Use database/interface that the region is familiar with (e.g., Access, EpiInfo) so the local/ regional epidemiologists can do their own analyses**

# **Annual Outbreak Training**

Thursday

March 18  
2004



41 13  
Weather forecast on 8B



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Singer calls it quits after 12 years of emceeing awards show ON 2A



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"There is no closure to this. Our son fought for his country. He returned safely home, and now he is dead."

— Doug Mitchell, father of Sgt. Chris Mitchell



P. CASEY DALEY/STAFF

Geraldine Padgett of Dickson looks at photographs of her husband, Edgar Padgett, with their daughter Pamela. The former Marine Corps pilot was 60 when he developed this mysterious illness and subsequently died.

## Family members die of mysterious illness

### Military to investigate

By SAM SEABORN  
Staff Writer

Bill Burkart was 8 years old when his father disappeared while piloting a mid-night bombing mission in Vietnam in 1966.

His dad, U.S. Air Force Col. Charles Burkart Jr., is one of 88,000 Americans classified as "missing in action" from conflicts dating to World War II.

For those families, the Department of Defense's Prisoner of War/Missing Personnel Office has held monthly briefings called

"Family Updates" in different U.S. cities since 1965. For the first time, Nashville will be the site of a Family Update, from 9 a.m. to 5 p.m. Saturday at Gaylord Opryland Resort & Convention Center.

"I want to be brought up to date about anything they might be doing," said Burkart, 47, of Lebanon, who went to one other Family Update four years ago in Washington.

"It's just being involved in the process and maybe getting some kind of understanding of what happened to him. There is no closure to this. A lot of families are going through similar things. It's somewhat comforting to hear and tell the stories that other people have gone through."

More information is also why Nashville's Jo Ann Connor and Maynie Birchett, both 68, also have registered for Saturday's briefing, though both say they have no hope that their missing loved ones are still alive.

Connor's husband, Charles Connor, was a pilot in the Marine Corps serving in Vietnam when he was classified as missing at

#### Inside

A look at how many service members are MIA from each war. ON 2A

► Please see **FAMILY UPDATES, 2A**