Analysis of Maryland Youth Camp Injury and Illness Reports and Evaluation of the Current Data Collection Parameters

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Background

- Over 11 million children and adults attend 12,000 summer camps in the US each year
- High quality data is vital to protect campers
- Requirements of State of Maryland COMAR 10.16.06.25
- Issues encountered by camps’ injury and illness reports
  - Too much information reported
  - Reports received long after incidents happen
Research Purpose

- Organization and analysis of existing data and current injury/illness form
- Collaboration with other DHMH units
  - Est. organized and coordinated reporting protocol
  - Share data in statewide surveillance systems
- Determine if illness surveillance system feasible
- Involvement of camps in updating form
Methods Used

- IRB exemption obtained from JHU and DHMH
- Data entry and analysis
  - Manual entry of 2007 data
  - Major issues with 2005-2007 data discovered by Dr. Serpi when attempting to analyze
Data and Database Issues

● Data
  - Large percentages of data missing
  - “Other” commonly chosen by camps
  - Analysis possible but would not show true picture due to incomplete data
  - Reinforced need to revise current injury/illness form

● Database
  - Difficult to extract data
  - Only reports available were counts of injuries
Research

- Interviews conducted
  - DHMH Injury Prevention Unit
  - DHMH Zoonotic Diseases Unit
  - NY Health Department
  - Dr. Ellen Silbergeld, JHU professor
  - Several camp directors
Questions for Camp Directors Regarding Their Own Reports

- How do you currently report injuries/illnesses?
- How are your forms organized?
- Does your insurance company require reports? If so, what information do you send them?
Questions for Camp Directors Regarding DHMH’s Form

- Do you find it difficult to complete the DHMH form?
- Would it be easier if there was a separate form for injury and illness?
- Would it be easier if the form was available online to submit?
- What would you change about the form?
- Are you and your staff aware of what injuries/illnesses need to be reported?
- Would it be more helpful to report symptoms versus diagnoses?
Additional Research

- Determine most common illnesses seen at youth camps for symptom surveillance
  - GI problems
  - Sore throat
  - Headache
  - Nausea
  - Fever

- These would form basis of symptom surveillance along with other key illnesses
Results

- DHMH and YSAC set new definition for reportable conditions
  - Death
  - Resuscitation
  - Admission to a hospital
  - Requires offsite treatment
Results (cont.)

- Recommendations from interviews compiled
- Major overall changes agreed upon
  - Future online form submission
  - Separation of injury and illness forms
  - Limiting input to front side of form
  - Mandatory reporting language added
  - Turnaround time expectation added
  - Additional demographic information about victim added
Results: Changes to Injury Form

- Add intent and cause of injury
- Add environmental conditions at time of injury
- Add animal bite/bat exposure as causative agent
- Add spinal cord/concussion/head injury as a result of injury
- Add physical/sexual abuse
- Add questions about contacting police and local health departments
- Remove redundant sections
Results: Changes to Illness Form

- Symptom list added
  - Common symptoms in food and waterborne illness
  - Lyme Disease symptoms
  - West Nile Virus infection symptoms
- Addition of write-in area for diagnosed illness
- Removed unpreventable and non-communicable diseases including among others
  - Appendicitis
  - Earaches
  - Dental
  - Indigestion
Discussion

- Need for effective and efficient data collection
  - Data incomplete, incorrect, and low quality
  - Evidence for change in form

- Need for communication among key players
  - Involvement of camps in updating form crucial
  - Collaboration with other DHMH units important to optimize data collection
Discussion (cont.)

- Clear need for electronic form
  - DHMH receive information quicker
  - Mandatory sections ensure form completion
  - However reporting delays still possible

- Trainings for camps needed
  - Purpose of data collection
  - Importance of filling out forms completely and correctly
  - Emphasis on timely submission of reports
Future Directions

- Future evaluation of symptom tracking to determine if symptom list effective
- Continued evaluation of received data to analyze effectiveness of new forms
- Future goal to provide annual summary reports on trends and best practices
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References
