

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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