

A Practice Commentary  
Communicable Disease Management in the Camp Setting

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Purpose Statement

Campers and staff arrive ready to participate in the camp program. When communicable illness strikes, it impacts that participation and changes the camp experience in unanticipated ways. This practice commentary describes strategies that, if utilized, help minimize the potential that communicable illness will occur (prevention). It also describes strategies to use when an outbreak occurs (response).

The commentary is written from the perspective of the person responsible for coordinating a camp's outbreak response. Content was drawn from experience with the H1N1 outbreak (Erceg and Bialeschki, 2009), literature about communicable disease control (Erceg, 2008; Heymann, 2008), and the experience of camp professionals who had practical experience coping with outbreaks at camp (Hill, Austin & Goodrow, 2008; Lankford, 2009; Rodd, 2009).

Prevention:  
Making It Less Likely that  
Communicable Disease Occurs at Camp

The strategies below have the potential to minimize the emergence of communicable diseases at camp. When going through the list, keep in mind that no single strategy will be 100% effective; rather, implement as many as possible.

- Augment pre-camp agreements with camper parents and staff to address these information points:
  - Ask that each camper and staff member arrives well rested, nourished and hydrated. The goal is for individuals to arrive as resilient as possible.
  - Tactfully state that the camp reserves the right not to admit people who pose a communicable disease risk to others.
  - Direct that people who are ill not come to camp until they are healthy. Provide parents/staff with the name and contact information of an appropriate camp professional should questions arise in the days before arrival. Be prepared to discuss a delayed start for ill people and/or the option of coming to a different session. *Note: the Healthy Camp research (2010) determined that between 5-7% of illness at camp actually started before the person arrived.*
  - Briefly describe the action taken by camp should a communicable disease outbreak occur. If this might include sending campers home early, be sure to state that. Consider providing access to an insurance that covers the cost of "camp interruption."

Take Note

There is a difference between day and resident camps regarding communicable illness exposure. Day campers and staff go "home" each day and mix with the general population; consequently, their risk profile includes a daily potential for exposure to communicable illness from the general population and the potential to bring that illness to camp the next day. This is not as likely in resident camps, although the likelihood can't be entirely ruled out. Some people at resident camps do move between camp and the outside world. In addition, people from the outside may come into camp. Consider distinctions such as these when setting up your camp's communicable disease response plan.

- Request immunization history for each camper and staff member on the health history form. This is particularly important when illness associated with lack of immunization occurs. That being said, note that some immunizations, once thought to provide lifetime immunity, may no longer do so (e.g., pertussis/whooping cough) or they have a high failure rate (e.g., varicella immunization).
- Pre-screen health history forms before Opening Day to identify those who may be more at risk for communicable illness. Follow this by talking with appropriate people to develop a plan that minimizes the risk potential for these people. *Note: the Healthy Camp research (2010) noted that individuals with chronic illness diagnoses have a greater potential to get ill while at camp.*
- Conduct Opening Day screening of both campers and staff that includes assessment for communicable diseases.
- Orient all staff to illness-reducing strategies. Couple this with assessment of each staff member's ability to implement and personally use the strategies (e.g., through performance appraisal process). Consider utilizing resources such as ACA's online course, "No Outbreaks Here" (American Camp Association, 2010).
- Implement practices that minimize potential for communicable disease once camp is in session:
  - Appropriate hand-washing and/or hand sanitizing. This assumes adequate wash basins and/or sanitizing pumps placed at key locations.
  - Coughing/sneezing "into your sleeve." Covering coughs/sneezes with one's hands is no longer desired behavior.
  - Keep peoples' hands away from their faces.
  - Make it a camp rule that personal supplies – hairbrushes, pillows, caps, contact lens solutions, make-up – belong to the owner and should not be shared with others.
  - Make it regular practice that one drinks only from one's personal drinking cup; no sharing, even "to be nice."
  - Increase the social distance between people, especially in dining rooms.
  - Sleep head-to-toe in tents rather than nose-to-nose.
  - For resident camps: maintain at least 30" between beds and sleep head-to-toe (top bunk has the person's head at one end, the bottom bunk has the person's head at the other end).
  - Utilize universal precautions – for and by everyone.
  - Direct Health Center staff to isolate people with questionable symptoms until communicable illness can be ruled out.
  - Instruct staff to direct campers complaining of gastro-intestinal upset to the Health Center for assessment. Don't wait for kids to throw up!
  - Make certain that food service staff know and implement safe food handling practices.
  - When food service personnel have questionable symptoms, especially those associated with the gastro-intestinal track, keep them away from food preparation until appropriately improved.
- Maintain access to reliable sources of information about communicable illness.
  - Provide a copy of the American Public Health Association's *Control of Communicable Diseases Manual* (Heymann, 2008) to Health Center staff.
  - Reference the CDC website ([www.CDC.gov](http://www.CDC.gov)) for information about outbreaks (consider where your campers and staff come from) and for information specific to a given illness.

- Continue membership in ACA and ACN; both organizations provide supports to camp professionals and pro-actively survey for emerging threats. Stay linked to these resources!
  - [www.ACAcamps.org](http://www.ACAcamps.org)
  - [www.ACN.org](http://www.ACN.org)
- Learn what community supports/resources might be available should an outbreak occur and how to access those resources. Examples include:
  - Public, community and/or county health nursing: this may be a resource for extra nurses and a conduit for access to other resources attached to the community's emergency plan.
  - County/local emergency preparedness coordinator: this may provide access to supplies such as extra cots and blankets and canvas wall tents for creating a large admit area.
  - The business that supplies Port-a-Potties: extra toilet units with exterior hand-washing units can be a real boon when dealing with sick campers and staff.
- Define your "Tipping Point." Minimize the potential to be "surprised" by an outbreak. Instruct Health Center staff to alert camp administration when four, five people present with similar symptoms within a given time period (3-4 hours). This is especially important when the symptoms are gastro-intestinal in nature.

### Response Planning: Minimize Impact by Planning for an Outbreak

Even the best risk reduction plans will not be 100% successful. Norwalk virus, the common cold, and infectious conjunctivitis are just three of the many illnesses with which camps routinely cope, let alone emerging new illnesses like H1N1. We're dealing with human beings, so "stuff happens."

Consequently, put as many strategies in place to prevent an outbreak as possible, but also hedge your bets by developing a response plan. Someday you will need it.

#### Prepare for the Planning Meeting

Start by identifying the key people for the camp's planning team, those who are responsible for critical services should an outbreak occur, and define the scope of their tasks. For example:

- Designated a plan coordinator: this is often the camp director.
- Spokesperson: the individual who oversees all messaging about the situation to both internal and external audiences. This may be the plan's coordinator.
- Lead person in the Health Center: this person's focus is care of ill people, staffing to support that process, and routing requests for needed supplies/supports to the appropriate person. It is particularly helpful if this individual is also knowledgeable about communicable disease processes.
- Head cook: this person's focus will be nutritional support of ill people and the care-taking team.

There is no magic number of people on a response planning team. Pull together people who can accomplish needed tasks while keeping the response plan coordinator informed. These people must be team players and flexible; they'll interface with one another in ways that may also change with barely a moment's notice.

- Business manager/camp secretary: this individual will focus on procuring needed supplies, is critical to communication processes (e.g., answering phones, responding to individual needs), and for maintaining records.
- Lead counselor: camp will continue for non-ill people. This individual focuses on that group and is key to communicating with them about the outbreak. This is also the person who oversees staff assignments and is, consequently, the “gatekeeper” for diverting extra hands to help in the Health Center if needed.
- Facilities (maintenance) person: This individual focuses on keeping utilities running, augmenting facilities as needed (e.g., more toilets, more laundry needs), and overseeing changes to the physical set-up (e.g., adding a tent as an admit area, moving kids out of a cabin that will be changed to an admit area).
- Parent Contact: consider designating someone to whom parents of ill campers can speak and who will stay in touch with these parents (communication should go both ways). Consider how this communication will take place (e.g., email messages twice a day for routine updates, immediate phone contact when someone’s illness doesn’t go as expected). Anticipate the need for parents to take a sick child home (e.g., arrange hotel rooms, airport shuttle, car rental access).
- Representative from the local community who knows how to access additional supports should they be needed and who can serve as a communication conduit between camp and the external community. This might be a representative from the Department of Health or a person connected to the county’s emergency preparedness plan. *NOTE: Having such a person aware of the camp’s response capacity can also influence decisions associated with determining when to close a camp. Keep this representative informed.*

Talk with each prospective team member; get their buy-in to the planning process, invite them to the first team meeting, and explain the focus of their responsibility.

Before going into the planning meeting, also talk with representatives from groups that may have a vested interest in the camp’s planning process. Input from these entities may color some plans. Common stakeholders might include a Board member and/or the camp’s insurance carrier.

### Conduct the Meeting

The goal of this meeting is to (a) plan for meeting immediate needs associated with an outbreak and (b) explore how the plan might be adapted as more people get ill. In so doing, also consider these questions:

- At what point might the number of ill people overwhelm the camp’s ability to continue care? Where is this tipping point? Is that tipping point contingent upon anything?
- What leadership staff are critical to continuing camp? Can camp continue if they get ill?
- What conditions might warrant camp getting closed by an external agency? What are the criteria used to make this determination?

Some of the functional areas that need attention are listed below. As each is discussed, members of the planning team should consider how their functional responsibilities might be affected by another area; ability to interface is key to the plan’s success. Understanding the plan’s coordination also reinforces the need to keep the coordinator informed.

Respond to the problem:

Focus on (a) supporting the recovery process for those that are ill, (b) emphasizing behaviors that will break the chain of communicability, and (c) keeping key people informed.

Support Health Center needs:

- Create a charting process that captures needed information in a streamlined way while also being readily accessible to the care-giving team.
- Make sure Health Center personnel get adequate food, sleep and breaks. Consider adding extra help, including during the night.
- Consider how the illness is passed from person to person; implement strategies to minimize the potential that caregivers will also get ill.
- Allow Health Center staff to focus on essential services; arrange for others to assume non-essential services (e.g., cabin sanitation checks) or temporarily suspend these.

Food Service:

- Designate a person to coordinate Health Center needs with kitchen personnel.
- Determine how meals get to and from the Health Center and how the kitchen will know the number of meals needed. Stock the Health Center with food classically associated with illness (e.g., saltines, chicken noodle soup, 7-Up™); consider the benefits of using paper plates and disposable silverware.
- Discuss keeping the camp's food service operational should some staff become ill.

Campers and Staff:

- As more people get ill, it may be necessary to divert counseling staff to assist in the Health Center. Consider the impact on programming and the flexibility of reassigning staff.
- Ill people may desire diversion; what aspects of programming might be provided? As individuals get better, what activities would be brought into the Health Center?
- Discuss how campers and staff will be updated about the outbreak, the frequency of this update, and who will deliver it. Assume this information will be leaked (cell texting and email are ever present!) and prepare to handle the result of that leak.

Communication:

- Determine how and by whom parents will be informed of their child's health status; develop a record-keeping system to track this information exchange. Consider providing parents with a designated phone number (cell phone?) should they have need for immediate information about their child.
- Determine how the camp office is informed of people who come down with the illness and how this information is passed to others who need to know; might there be a difference if the person is a camper or staff member?
- Set up and keep notes of the Response Team's meetings.
- Prepare to handle inquiries from media.
- Consider creating templates for anticipated print messages.
- Develop a system to capture incurred costs and document the response process; be sure all team members know about this system.

Facilities:

- Determine the best location to admit ill people; this may mean moving campers out of a cabin that will then switch to an infirmary (admit area) and/or setting up additional housing (e.g., wall tents). Consider separation of sexes in housing.
- Discuss toilet and hand-washing facilities. These should be convenient to the admit area and accessible at night as well as during the day. Schedule appropriate intervals for pumping of waste containers.
- Assess ventilation and climate control options for the admit area. Keeping people comfortable will be important.
- Determine how people will be moved in and out of the admit area; who collects and transports their personal belongings?
- Consider how expeditiously laundry gets handled and by whom, especially if the illness includes emesis and/or diarrhea.
- Arrange for garbage disposal for the Health Center and admit areas.

Purchase additional supplies:

Consider the nature of the outbreak and what resources are needed to respond to it. Lay in an extra supply of these items. For example, additional bleach for cleaning, baby monitors to assist with supervision of sick people, and more of the medical supplies needed to respond to the outbreak (e.g., acetaminophen, gloves, protective masks, hand sanitizer).

### Initiate the Response Plan

The Tipping Point: The point at which one is aware that an outbreak may be occurring/has occurred.

Once a person is aware of an outbreak, who do they tell and how? When determining this notification, make a distinction between a potential outbreak (e.g. “We may have a problem . . .”) as opposed to a “for real” situation.

*CAUTION: Because Health Center staff see many people with the generic stomach ache and other problems that, in reality, are benign, it can be easy to miss the actual kick-off of an outbreak. Consequently, bring this to the attention of the Health Center staff.*

Confirm the Problem: Identify the Concern(s)

Identify the symptoms that one is coping with and, if possible, identify the illness. Some – like chicken pox and infectious conjunctivitis – are easy to identify because of the presenting symptoms. Others – for example, influenza-like illness and Norwalk virus – take time to diagnose. The point is to grasp the nature of the symptoms in order to trigger an effective response capacity.

This is a critical decision point. Further action will be determined based on the initial assessment of the problem. Be prepared for change as more information is learned about the outbreak.

When in doubt, isolate symptomatic people from non-symptomatic campers and staff.

Initial Actions

- Consult with Health Center staff:

Make sure identified cases have been Isolated and that these people are receiving appropriate care.

Evaluate the need for additional assistance for Health Center staff.

Plan how routine Health Center activities will continue in spite of the outbreak.

Because this is a changing situation, be sure Health Center staff know how to quickly contact the camp director and/or when the director will again check in.

- Work toward a definitive diagnosis of the problem. Involve a physician from the local community so access to local resources is eased. If there's an in-residence physician already at camp, have the two MDs interface.
- Activate key players in the response team; bring them together to launch the plan. Leave this meeting knowing when the team will meet again.
- Consider the need to contact Department of Health and/or other oversight bodies.
- Decide what key messages need to be delivered to various groups and who will deliver those messages:
  - Currently unaffected campers and staff. Tell these people what is going on – including comment that affected people are being cared for – and what they might do to keep healthy. Explain what to do if they start feeling ill. In so doing, expect that some “sympathetic” illness may show up. Create a “holding area” until illness status is determined.
  - Parents, both those with affected children and those whose child is currently healthy. *Note: It is possible that a parent may not have fully disclosed a particular child's health profile on that child's health form. Consequently, when contacting parents, consider this and provide an option for them to contact a designated individual should concerns arise.*
  - Other stakeholders (e.g., insurance carrier).
- Note the potential for news to leak out of camp via technology (e.g., texting, email); be prepared for this. Identify a spokesperson to whom inquiries can be routed and inform people – campers and staff – how to direct inquiries to the designated spokesperson.
- Review health forms to identify individuals who may be at greater risk for the presenting illness; take appropriate steps to protect these people (e.g., immune-compromised camper may need gamma globulin with chicken pox outbreak).
- Contact the camp's liability insurance carrier; brief them on the situation (start a case file?).

Parents want to know what's going on, even those whose child is not directly involved. Consider two communication groups: one for parents of ill campers and the other for parents of healthy campers.

### Sustaining the Response Plan

Once a communicable illness outbreak has started, expect that more people will become ill before the load of illness begins to ease off. Knowing how long one must sustain the response depends on how “catchy” the illness is, it's incubation period, and the effectiveness of control strategies. This is where a person (consultant?) skilled in communicable disease control can be quite helpful.

When the illness has been identified, adjust the response plan to focus on that illness's profile, especially the ways in which it is passed from person-to-person and the care needed by ill individuals.

Assuming the Department of Health has not already made the decision, evaluate the feasibility of continuing to care for people at camp, having ill people go home, and/or delaying the start of the next camp session. Several factors play into this decision, including the capacity of the camp staff to sustain their support efforts.

Maintain at least daily meetings with the response team. Assess their resilience over time, especially if the outbreak continues beyond three or four days. This will be particularly important for the Health Center staff.

Reassess communication processes to be sure they are meeting the needs of invested stakeholders. Adjust this process as needed; document the reason for each change/adaptation. Remember to consider upcoming sessions; might it be helpful to postpone the start date and/or inform those parents of what is going on? Also consider the previous session; should they be informed?

Do a daily review of camp processes to determine if plans remain supportive of needs. Adjust as needed, keeping a keen eye on the number of new cases, the number of current cases, and the number of recovered people. Look for connections among those who are getting ill; might some aspect of control have been overlooked?

### Recovery & Mitigation

Assuming control measures were effective, the number of new cases will eventually start to wane. Consult with a communicable disease specialist to determine how long control measures should be kept in place. Do not get lulled into assuming an outbreak is over only to have it re-emerge because controls were terminated too soon.

Process records of the outbreak. These will include Health Center records, receipts for incurred costs, and copies of communication with stakeholders, especially parents.

Expect key people – especially Health Center staff – to be fatigued once the fray of response is over. Debrief the team as a group and individually; allow down time as needed by each person (including the camp director) over time.

Evaluate and update the camp's communicable disease response plan. Adjust areas that need improvement and look for places where greater efficiency with less effort might exist. Discuss lessons learned; capture that information. Identify gaps and shore them up.

We learn from one another. Information in this Practice Commentary was possible because camp professionals shared their experiences. If your camp copes with a communicable disease outbreak, please call Linda Erceg at the Association of Camp Nurses (ACN) to talk about your experience. Thank you!

218-586-2633

#### References

American Camp Association. (Producer). (2010). *No outbreaks here: Simple strategies for reducing the spread of communicable diseases at camp* [web course]. Available from <http://www.acacamps.org/einstitute/healthycamp>.

American Camp Association. (2010). *The healthy camp study impact report*. Martinsville, IN: American Camp Association.

Erceg, L.E. (2008). Outbreak! Assessment, management and mitigation. *CompassPoint, 18* (3), 3-4, 19.

Erceg, L.E., & Bialeschki, M.D. (2009). Exploring the impact of influenza-like illness: Preliminary survey results. *CompassPoint, 19* (4), 4-5.

Heymann, D.L. (Ed). (2008). *Control of communicable diseases manual*. Washington, DC: American Public Health Association.

Hill, B, Austin, A., & Goodrow, T. (2008). Norwalk virus at camp: Testing the disaster plan. *CompassPoint, 18* (3), 5-10.

Lankford, L. (2009). H1N1 at camp: A novel experience. *CompassPoint, 19* (3), 15-18.

Rodd, J. (2009). Outbreak tips. Personal communication; September 2009.