



## Public Health Update

Tuesday, August 05, 2008

### Yosemite National Park Outbreak Update

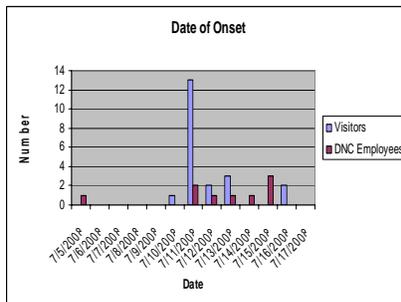
On 12 July 2008, the Safety, Health and Environmental Office at Yosemite (YOSE) National Park was notified of a potential food-borne illness outbreak in eight hikers who became ill at Glen Aulin High Sierra Camp. The hikers were friends and family who were traveling together in one group. LT Shane Sims, Safety Officer at YOSE, worked with Mather District Park Rangers and YOSE Search and Rescue, to determine that seven of the eight hikers became ill with symptoms of vomiting, diarrhea, and stomach cramping to various degrees. Four were evacuated by helicopter to the YOSE Clinic, where the patients were treated and released, and four others in their party were able to hike out. Additionally, other employees and visitors in the Tuolumne area had reported to Tuolumne rangers of illnesses with similar symptoms in previous days.

On 13 July, three more cases of gastrointestinal illness were reported in a party of five in the May Lake area. On 15 July, more cases in Delaware North Company (DNC) employees at Tuolumne were reported. Visitors who had camped or lodged in Tuolumne and reported illness in other High Sierra Camps (Sunrise and Vogelsang) were reported as well. Most illnesses reported included vomiting, diarrhea, abdominal cramps, and sometimes fever and chills.

After notification of the illnesses at Glen Aulin on the morning of 12 July, LT Shane Sims began an epidemiologic and environmental investigation into the reported illness in the Tuolumne area with the help of Mather District Park Rangers. Collaboration also occurred with the NPS Office of Public Health, Mariposa, Mono, and Tuolumne County health departments.

Based on food histories taken from ill and well persons, a particular food could not be implicated as the vehicle for this disease, and transmission was likely due to fomite (inanimate objects) transmission and person to person contact. Stools were taken on two patients who were sent to Mammoth Hospital in Tuolumne County; a park visitor who stayed at the Tuolumne Lodge and a DNC employee who worked at the front counter of the Tuolumne Lodge. Of two stool samples obtained during this outbreak, one came back positive for norovirus. Hikers and campers traveling in tight groups seemed to be the majority of park visitors who became ill, suggesting person to person contact and fomite transmission within

the respective groups. The incidence of gastrointestinal illness may have been underreported, as well. All data reported to the Safety office had been obtained from ranger reports and from discussion with Tuolumne managers and staff. A total of 30 cases of DNC employees and visitors who had symptoms of vomiting and/or diarrhea and/or stomach cramping had been reported as of 18 July 08.



Norovirus is the leading cause of viral gastroenteritis in the United States with an estimated 23 million cases occurring annually. The incubation period (time between exposure and symptoms) is usually 24-48 hours, with a range of 10-72 hours. Symptoms usually include nausea, vomiting, diarrhea and abdominal cramps. The duration of the illness is short, usually between one and two days. Norovirus is very infectious and requires a dose as low as 10 to 100 virus particles to cause illness in a human.

### Ongoing California Cooperative Agreement Activities

#### California Park Knowledge, Attitudes, Practices Survey on Vector-borne Diseases Released in July

In conjunction with the California Department of Public Health, the Office of Public Health distributed a knowledge, attitudes, and exposure survey on vector-borne diseases to employees working in California national parks this July. Vector-borne diseases are infectious diseases that can be transmitted to humans from biting arthropods and wild rodents.

This survey examines current working practices, knowledge of vector-borne and zoonotic diseases, and ways NPS can reach out to employees to provide more information on vector-borne and zoonotic diseases. The survey will be posted on a web-site where employees

can voluntarily share their experiences and opinions. The survey is open to all California National Park employees and will be closed on August 31, 2008. The survey can be accessed at the following link:

[http://www.surveymonkey.com/s.aspx?sm=QE L3Z28pcW\\_2bEJWvUvhqv\\_2fA\\_3d\\_3d](http://www.surveymonkey.com/s.aspx?sm=QE L3Z28pcW_2bEJWvUvhqv_2fA_3d_3d)

and is also accessible on the PWR Intranet :

<http://inside.nps.gov/regions/custommenu.cfm?lv=1&rgn=PWR&id=7358>

**For more information on the survey, please contact: LCDR Amy Chanlongbutra**

[Amy.Chanlongbutra@nps.gov](mailto:Amy.Chanlongbutra@nps.gov)

### Update on Yellowstone Backcountry Study

During this summer, The National Park Service Public Health Program and our partners at the Centers for Disease Control and Prevention (CDC) are co-sponsoring a study on the burden of illness and injury in backcountry users. The purpose of this study is to define the burden of illness and injury among backcountry users; determine behavioral and environmental risk factors for illness and injury in the backcountry; and improve evidence-based National Park Service guidelines for backcountry health and sanitation practices.

This study has been ongoing since June and will end in October. The response rate of participants is currently being tracked. Contact information of visitors is obtained from 8 backcountry offices and the survey link is emailed to visitors. The study is in its approximate eighth week so although initial response rate was in the twenties, the project has some time to go before data collection is complete. Reminders are being generated automatically as well to increase response rates.



## Disease Surveillance Web Pilots

The disease surveillance web pilots are part of a larger effort to create a nationwide park-based surveillance system.

### Yellowstone National Park

A disease surveillance web pilot in Yellowstone, which was implemented in May, is "going very well", as reported by LCDR George Larsen. Two concessioners, Xanterra and Delaware North, are participants in the pilot. Location managers are responsible for entering in employee illnesses and absences into the system. LCDR Larsen reports that the managers have found the system "easy to use" and it is frequently updated by the managers. Location managers seem to understand the importance of real time data. Between May and June, the system picked up sporadic cases of gastroenteritis illness but no large clusters. However, the availability of real time data allowed LCDR Larsen to follow-up with food beverage and location managers to make sure employees did not come to work if ill. Because of real time data on employee illnesses and absences, the system was able to provide indication when vigilance is required and active response appropriate.

### Denali National Park

Collection of data on gastroenteritis illness of patients on cruise ships started this summer. Bugs in the system are still being worked out in the next couple of weeks. Data on the travel history of patients is extracted on a daily basis. Although the system is up and running, the quality of the data is currently being improved.



For more information on the Yellowstone study and disease surveillance web pilots, please contact: CDR David Wong, MD ([david\\_wong@nps.gov](mailto:david_wong@nps.gov)).

## Current Issues

With the recent news of the *Salmonella* Saintpaul outbreak due to contaminated produce, there has been increased scrutiny on the US food system, from farm to table.

However, even at the consumer level, there are some basic tips from the U.S. Food and Drug Administration that we can keep in mind to ensure that we purchase, store, and prepare foods in a safe manner.

**You can help keep produce safe by making wise buying decisions at the grocery store.**



- Purchase produce that is not bruised or damaged.
- When selecting freshcut produce - such as a half a watermelon or bagged mixed salad greens - choose only those items that are refrigerated or surrounded by ice.
- Bag fresh fruits and vegetables separately from meat, poultry and seafood products when packing them to take home from the market.

### Storage Tips for Fresh Produce

Proper storage of fresh produce can affect both quality and safety. To maintain quality of fresh produce:

- Certain perishable fresh fruits and vegetables (like strawberries, lettuce, herbs, and mushrooms) can be best maintained by storing in a clean refrigerator at a temperature of 40° F or below. If you're not sure whether an item should be refrigerated to maintain quality, ask your grocer.
- All produce that is purchased pre-cut or peeled should be refrigerated to maintain both quality and safety.

### Preparation Tips for Fresh Produce

Begin with clean hands. Wash your hands for 20 seconds with warm water and soap before and after preparing fresh produce.

- Cut away any damaged or bruised areas on fresh fruits and vegetables before preparing and/or eating. Produce that looks rotten should be discarded.
- All produce should be thoroughly washed before eating. This includes produce grown conventionally or organically at home, or produce that is purchased from a grocery store or farmer's market. Wash fruits and vegetables under running water just before eating, cutting or cooking. Even if you plan to peel the produce before eating, it is still important to wash it first.
- Washing fruits and vegetables with soap or detergent or using commercial produce washes is not recommended.
- Scrub firm produce, such as melons and cucumbers, with a clean produce brush.
- Drying produce with a clean cloth towel or paper towel may further reduce bacteria that may be present.

## Commissioned Corps Corner

### Outgoings and Incomings

CAPT Mary Miner recently retired after 5 years with NPS, most recently stationed at the Alaska regional office. Thank you for your service CAPT Miner!

CDR David Engelstad joined Yosemite National Park as a Civil Engineer/Project Manager.

LCDR Sherri Hadley joined the Alaska Regional Office as a Project Engineer.

LT Shane Sims joined Yosemite National Park as a Safety Officer/Environmental Health Officer.

LT Mark Baker joined the Intermountain Regional Office as an Engineer.

Welcome CDR Engelstad, LCDR Hadley, LT Sims, and LT Baker!

### Promotions

### Congratulations to the following officers on their promotions!:

CAPT Steven Bosiljevac, effective 7/1/08  
LCDR Amy Chanlongbutra, effective 7/1/08  
LCDR Adam Kramer, effective 7/1/08  
LCDR Matt Walburger, effective 4/1/09  
LCDR Elaine Wolff, effective 4/1/09

In Partnership for nearly 100 years, the National Park Service and the United States Public Health Service have worked together to protect the health of visitors in Americas Parks!

#### Program Websites:

Internal:

<http://inside.nps.gov/publichealth/index.htm>

External:

[http://www.nps.gov/public\\_health/index.htm](http://www.nps.gov/public_health/index.htm)

