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Arlee Schools norovirus outbreak-Lessons Learned

Montana Safe Schools Center (MSSC- www.montanafeschools.org**)** provides extensive outreach, training, research and professional development services to schools and communities across Montana and throughout the United States. Our training topics include:

- Professional development for School Resource Officers (SROs)
- Positive Behavioral Supports (PBS) training
- [Bully prevention programs](#) (Steps to Respect, etc.,)
- Suicide prevention gatekeeper training programs (QPR, ASIST, etc.,)
- [School safety and climate assessments](#)
- Internet safety training
- [School emergency response and crisis management training and exercise facilitation](#)
- Conflict resolution and peer mediation initiatives
- Crime prevention through environmental design (CPTED) and hazard/vulnerability assessments
- Classroom management, special education, and behavioral consultations

Arlee's Story:

As schools enter the "flu season" each year schools throughout the country, including those in Montana, experience significant student absences as a result of illness. In most circumstances, the student and staff absences are addressed on an individual basis. However, there are infrequent epidemics which sweep through a school-community and at such times prompt closing of the school is the most prudent approach to ending the epidemic.

Arlee, Montana had such an experience during January 2008 and their lessons learned are worthy of consideration by every school administrator and public health department. Arlee school officials and public health officials were effective and the health of the school-community was restored quickly and there were no long lasting ramifications. In their commitment to reducing the likelihood of such outbreaks in the future, the school realized there are additional prevention-mitigation practices they can proactively take.

Sequence of events:

Wed. January 16, 2008

The Arlee elementary school secretary reports to the principal that large numbers of students are sick. Similar illnesses were also being noted by the high school. The high school student

illnesses were impacting athletic teams and were going to present a problem with scheduled games.

By mid-morning, the elementary Principal reported that 18 students in the past hour were seen by the school nurse with symptoms of vomiting and diarrhea. The nurse's office was full and ill students were in the hall awaiting pick up by their families. By noon, the elementary Principal reported three teachers and 2 aides were also ill; by this time 34 students had reported to the nurse's office with symptoms.

John Miller, the superintendent of Arlee Public Schools, contacted the Lake County Health Department and Montana Department of Public Health Services (DPHS) on a conference call. Both agencies addressed the nature of the illness and offered suggestions for dealing with it and involving the media. The superintendent asked about potentially closing the school; both agencies reinforced his decision to close the schools district.

By 1 p.m., school personnel started notifying parents of the outbreak and school closure; Personnel read from a script ensuring that a consistent message was delivered. Every child's parent was phoned. Some staff also went door-to-door. The superintendent also ensured that the school board chairperson was fully aware of the developing situation.

Family Members began picking up ill students, some as a result of the scripted calls and some because of the earlier calls from the school nurse. The superintendent contacted the *Missoulian* newspaper as well as local TV stations and issued a press release on the school closure and the nature of the incident. The virus continued affecting the students and staff; by 3:30 p.m., over 50% of the school population was reported ill.

One of the student's parents worked for the Flathead Tribal Health Department. This parent took their child's fecal sample to the Lake County Health Department. Officials at that Department then sent the sample to the State Health Department in Helena. Results were reported from the state office to the Lake County offices by 6 p.m. The cause of the outbreak was identified as an airborne Norovirus and the state took full responsibility for the diagnosis. DPHS requested additional school closures for Thursday, Friday and Monday.

Team work saves the day!

Thursday through Monday

All the district's schools were closed and no one, except the custodial staff, was allowed on campus. The bus supervisor assumed responsibility for cleaning the buses; there were no athletic or other teams traveling to other schools. No one was allowed on campus.

The *Missoulian* ran the story Thursday morning that contained the following information specific to the event:

- “highly contagious norovirus”
- “County and state health officials applauded Miller's decision”.
- The virus has a 48-72 hour gestation period.
- The virus is airborne, not food borne.

- Recommend frequent hand washing and disinfecting touched surfaces.

The superintendent prepared an updated public statement about the closure and issued it to all local media outlets as well as local health agencies. The district did implement their Emergency Calling Tree and again used scripts for these calls ensuring that a consistent message was delivered. All athletic games and practices were canceled. All school buildings and all buses were cleaned on Thursday and Friday; the kitchen was the last area cleaned on Saturday. When an area was cleaned, it was masked off with barrier tape to prevent re-infection and unnecessary re-cleaning.

The public was kept informed throughout the event and the *Missoulian* ran an article on Saturday that contained:

- “More than 160 students and another dozen or so teachers either missed or left school with the gastrointestinal bug on Wednesday.”
- Friday the custodial staff thoroughly cleaned the building.
- “School is out until Tuesday which will give the pesky bug a full five days to run its course.”
- The emergency is over.
- Reiterated ways to avoid it and keep things clean.
- These three *Missoulian* articles were reported by Kim Bruggeman.

Tuesday, January 22, 2008

The school re-opened and their student count was normal; no other schools or communities in Lake County or on the Flathead Reservation experienced the epidemic.

Lessons Learned/ Model for your schools

The school staff responded to the emergency consistent with their school procedures and their training. Because of that, the impact to the school system, its personnel and the communities they serve was minimized. The school secretary was alert and reported her concerns accurately and immediately. The elementary Principal reported her observations to the superintendent in the same way. The superintendent sought expert advice from the county and state health departments; and they accurately diagnosed the illness and visibly supported the superintendent’s decision to close schools.

The superintendent kept everyone informed. From the scripted phone calls to parents to the media releases, all people from the school-community were informed on the school actions, health of its students and steps to take to eliminate the threat to a household. The school personnel synchronized their activities ensuring the entire school and its buses were virus free when school resumed. The communication was effective in both the outlets and the message given; the parents and community responded appropriately and no one else in the county or on the reservation was infected.

Coordinating with other agencies is absolutely critical. The Lake County Health Department and DPHS were very helpful with both diagnosis and in dealing with the media. They were

consistent with their messages when the media called. Additionally, they were obviously supportive of the superintendent and his decision. The Tribal Health worker's decision to take a fecal sample to LCHD was exceedingly helpful in providing early diagnosis. We also need to note that OPI and the State Superintendent of School were supportive of the school-closing-decision and its outcome.

Media coverage can be helpful if managed proactively: The Missoulian coverage as well as television coverage (KPAX and KECI), with their multiple articles and broadcasts were particularly helpful in getting the word out. They accurately reported the situation. The media went so far as to alter their reporting when the superintendent phoned and stated he had used a term incorrectly (influenza). The media was very helpful in providing practical information to readers/listeners which was designed to decrease further transmission of the virus.

This story has a successful ending because of the efforts of many engaged and capable people. It is our hope that should you experience anything similar, that you will benefit from Arlee's story. We wish to thank John Miller, Arlee Superintendent for contributing to this article.

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