

Investigation of unusual spike in student absences

Business



Objectives: * Define the problem and verify if the illness is an outbreak * Assemble and organize available health information for analysis * Formulate a hypothesis about the cause of the illness * Test the hypothesis by analyzing data on the distribution of the disease by person, time and place. * Draw conclusions and make recommendations to prevent further transmission of the disease and prevent a new outbreak. Background Information: Potential health problem identified by a local middle school principle after one-third of the band students were absent on the same day. The principle notified the Community Health Department and an investigator has been assigned. Where are the unusual spikes of absences taking place? Based on information gathered, the absences occurred on Wednesday, May 20th from the Truman Middle School band class the day after a band competition with Jackson Middle School. According to the schools attendance data 33.

3 % of the band students from Truman Middle School and 25% of the band students from Jackson Middle School were absent from class on Wednesday, May 20th. Results of interviews with parents of absent students: Truman Middle School had 9 confirmed cases of similar GI symptoms & Jackson Middle School had 7 confirmed cases of similar GI symptoms. Hypotheses behind student absences: Food Poisoning due to cross contamination is responsible for the student absences. * The symptoms of food poisoning can develop rapidly, within 30 minutes, or slowly, worsening over days to weeks. Most of the common contaminants cause: * nausea * vomiting * diarrhea * abdominal cramping * fever Usually food poisoning is not serious, and the illness runs its course in 24-48 hours (Cunha, n.

d.) * Observation notes: After an inspection of the Take Your Chances Diner, several violations were noted including wiping cloths used by cooks for wiping down food contact surfaces were not cleaned and rinsed frequently in a sanitizing solution. “ Pathogens naturally present in one food may be transferred to other foods during food preparation if the same cooking equipment and utensils are used without washing and disinfecting in between” (Kansas Department of Health and Environment Division of Health, 2008). Hypotheses behind student absences: Viral gastroenteritis due to improper cooking or improper food holding temperatures is responsible for absence of the band students. * The main symptoms of viral gastroenteritis are * diarrhea * Vomiting * headache * fever * chills * abdominal pain * Symptoms usually appear within 12 to 48 hours after exposure to a gastroenteritis-causing virus and last for 1 to 3 days.

Some viruses cause symptoms that last longer. Viral gastroenteritis, 2011) According to Kansas Department of Health and Environment Division of Health, “ inadequate cooking or improper holding temperatures: Under optimal conditions, bacteria may multiply and produce toxins within food. Bacterial toxins that are produced are heat stable and may not be destroyed by cooking temperatures. ” Observation Notes: After an inspection of the restaurant DELicious, a few violations were noted including failure to use food thermometers. The evidence.....

the who, what, when, where and how. * Who? 7th grade band students from Truman & Jackson Middle Schools * When? * Wednesday, May 20th * What? * Absences from school due to similar illness symptoms * Where? * Both school bands were at the same competition * How? * Suspected food
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poisoning Testable Questions: 1. Was there a common event attended between the two schools where all the affected students were present? 2. Was there a common restaurant involved where all students affected ate? 3. What were the food items served? 4.

What symptoms did the students experience? . When did the symptoms occur (to determine incubation period)? 6. How long did the symptoms last & were you treated or diagnosed? Is the following statement a suitable hypothesis: “ The Brentwood Indians basketball team lost the state championship because there is bad stuff in the stars happening with Mars in Aquarius”? Explain why or why not. My hypothesis of the provided statement is that there is no sound scientific evidence that proves that astrology can determine the outcome of our actions. According to our text *The Sciences*, the central belief of astrology is that the positions of objects in the sky at a given time (a person’s birth, for example) influence a person’s future.

“ More importantly, scientists reject astrology because it just doesn’t work. Over the millennia, there has been no evidence at all that the stars can predict the future” (Wiley, 2011). References: Cunha, J. P. (n. d.

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