

Mph 504 -  
epidemiology  
(module 2 - slp)



**ASSIGN  
BUSTER**

Module 2 – Mod2SLP What are the advantages and disadvantages of the case definition? The advantages of the case definition are that the time, place and person have been described. The disadvantages are that asymptomatic cases and those developing hemolytic uremic syndrome or transient thrombocytopenic purpura are not included. Also, only those who have undergone stools culture and typing only are included.

2. Describe and compare the age and gender distribution of E. coli O157: H7 cases from this outbreak and those reported from U. S. FoodNet sites in 1997.

In this outbreak, 68 percent of the cases were females with median age of 31 years. In the 1997 US outbreak reported by the Foodnet, 52 percent cases were females with median age group 1-9 years. Thus children were more affected in the latter outbreak while in the outbreak under current investigation young people were more affected.

3. What kinds of questions would you ask in the hypothesis-generating interviews?

The first source of information for hypothesis generation in any outbreak is case-patients group which will provide valuable information on the "potential sources of exposure" (Meijia, 2006). In case the case-patient is unavailable, family member or friend must be interviewed. In case, the case-patient is a child, or guardian must be interviewed. Based on the size of the outbreak, about 8-10 cases of different demographic characteristics must be selected for the interview. Preferred are those cases which have occurred during the middle of the outbreak and those with typical case presentations. However, it is important to remember that even unusual cases may provide important clues. The following questions may be asked (Meijia, 2006):

1. Basic demographic information like age, sex, contact information and occupation.
2. Clinical presentation details like date of onset of symptoms, signs and duration of symptoms
3. Suspected source of infection and time duration between ingestion of the food/water and development of symptomatology
4. Details of professional health care, treatment received, response to treatment, laboratory investigations, hospitalization and duration of hospitalization.
5. Presence of similar symptoms among family members, friends and others.
6. Enquiry into specific activities like leisure trip. leisure activities, swimming, social gathering and contact with animals
7. Food consumption details like restaurant exposure, purchase of food, date of opening of the food, etc.
4. Given your knowledge about E. coli O157: H7, the descriptive epidemiology of the initial cases, and the results of hypothesis-generating interviews, outline the information available at this point on the source of the outbreak and mode of transmission.

The source of outbreak has been attributed to alfalfa sprouts and lettuce. Thus the possible sources of contamination are deer feces, cattle manure and irrigation water. The mode of transmission is food.

#### References

Mejia, G. C. (2006). Focus on Field Epidemiology. Focus, 2(1). Retrieved on 12th Feb, 2010 from [http://nccphp.sph.unc.edu/focus/vol2/issue1/2-1HypInterviews\\_issue.pdf](http://nccphp.sph.unc.edu/focus/vol2/issue1/2-1HypInterviews_issue.pdf)

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