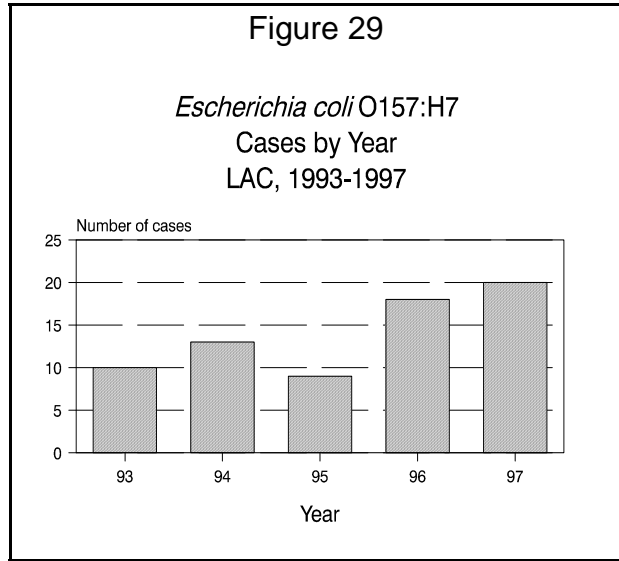


ESCHERICHIA COLI O157:H7

CRUDE DATA	
Number of Cases	20
Annual Incidence ^a	
LA County	0.2
California ^b	0.6
United States ^b	1.0
Age at Onset	
Mean	23.0
Median	11.5
Range	1-87 yrs
Case Fatality	
LA County	0.0%
United States	N/A



^aCases per 100,000 population.

^bNational Electronic Telecommunications System for Surveillance.

ETIOLOGY

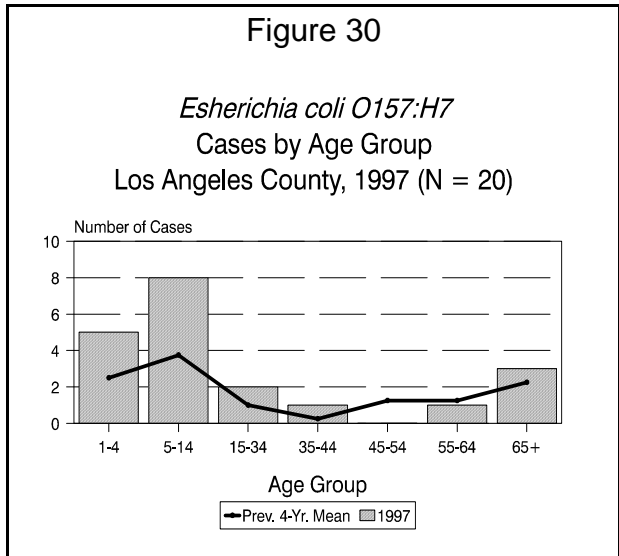
Escherichia coli O157:H7, a gram-negative bacillus, is a specific serotype of the enterohemorrhagic class of *Escherichia coli* which produces cytotoxins called shiga-like toxins or verocytotoxins. Clinical complications include hemolytic uremic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP).

DISEASE ABSTRACT

The 1997 incidence rate of *E. coli* O157:H7 increased to its highest rate in five years. The majority of cases were White, <15 years of age, and female. No outbreaks were identified.

STRATIFIED DATA

Although the number of *E. coli* O157:H7 cases more than doubled from nine cases in 1995 to 20 in 1997, the 1997 rate is far below the California and US rates (Figure 29). The 5-14 year age group had the most reported cases (8) followed by the 1-4 year age group (5) and ≥65 year age group (3) (Figure 30). The male-to-female rate ratio was 1:1.5. The majority of the cases were White (15), with three Asian, and two Black. The San Fernando, Torrance and



West Valley Health Districts had the most cases reported (four cases each). For almost every month the number of 1997 cases exceeded the previous four-year mean (Figure 31).

Aside from three cases who were associated with another case in the same household, no clustering was identified. The most common food exposures mentioned occurring within seven days of onset were consuming ground beef (45%) and patronizing a fast food restaurant (40%). Three cases reported consuming ground beef at a fast food restaurant.

Of the cases reported in 1997, 85% reported bloody diarrhea and 55% reported fever. Hospitalization was documented in 65% (13) of the cases with no deaths. Two of the four HUS cases reported in LAC in 1997 were positive for *E. coli* O157:H7. No cases had TTP, one case required surgery, and one case underwent dialysis.

COMMENTS

In recent years, efforts have been made to improve *E. coli* O157:H7 and HUS surveillance. The increase observed in 1997 may be a result of changes in surveillance activities such as the implementation of active surveillance activities in late 1995 and the disease becoming state-reportable in 1996. Annual incidence of *E. coli* O157:H7 has been steadily increasing since 1995.

Although infection with *E. coli* O157:H7 is most often associated with the consumption of inadequately cooked beef and raw milk, recent outbreaks in the US have implicated contaminated produce and their products such as unpasteurized apple cider, melons, alfalfa sprouts, iceberg and leaf lettuce, and mesclun (a mix of greens). For 1997 cases, the most commonly reported food exposures seven days before illness were ground beef and eating at a fast food restaurant. Since these two exposures do not account for all cases, other sources such as contaminated produce may have transmitted *E. coli* O157:H7 infection. Health department personnel should collect more detailed food histories for not only beef and dairy products, but also for vegetables and fruits.

Future efforts should concentrate on the education of physicians to consider *E. coli* O157:H7 in their diagnoses, laboratories to screen all bloody stool specimens and utilize the proper media, and the public regarding food handling practices and high-risk foods. In addition, enhancement of surveillance activities, the collection of more detailed food histories, and strengthening of national processing regulations to decrease food contamination should be targeted.

