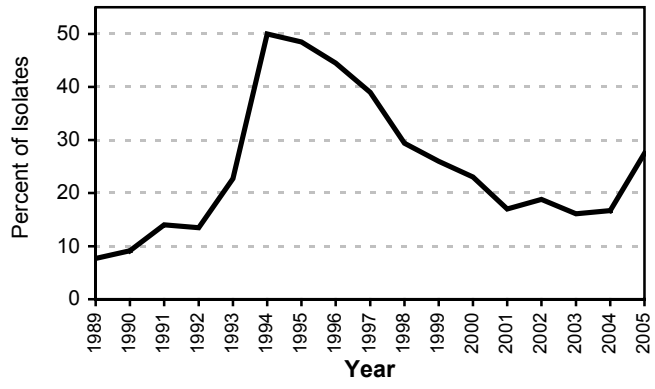
SALMONELLA ENTERITIDIS
LOS ANGELES COUNTY, 2005

Salmonella Enteritidis (SE) is the most common *Salmonella* serotype identified from isolates submitted to the Los Angeles County (LAC) Public Health Lab. After rising to a peak of 1,126 cases and 50% of the total *Salmonella* isolates in 1994, SE steadily decreased until reaching a plateau in 2001 to 2004. In 2005, however, reported SE cases increased by 42%. Of all *Salmonella* isolates, SE represented 18% in 2004 and 29% in 2005 (Figure 1). In 2005, the rate of confirmed infections with SE was 3.2 cases per 100,000 population, compared to 11.3 cases per 100,000 for all confirmed *Salmonella*.

Figure 1
SE Proportion
of Total Salmonellosis
LAC, 1989–2005



SE was identified most commonly from stool (90%), followed by blood (8 %), and urine and other specimens (2%). There were 72 hospitalizations (24%). SE infection was a contributing cause of death in three persons with underlying disease.

The highest frequency of SE cases occurred during July and August (n=44 and n=43, respectively). The summer increase of SE was dramatically higher than the previous five-year average (Figure 3). The highest number of cases (n=78) was in persons aged 15 to 34 years; however, the highest rate (8 cases per 100000) was seen in children aged 1 to 4 years. There were 1.3 male cases for every female case. Although 25% of all SE cases resided in SPA 2 (n=74), the highest rate (5.4 cases per 100000) was in SPA 5. Travel was a risk factor for 27% of cases; of these 30% visited Mexico and 25% traveled within the US.

Figure 2
SE Outbreaks
by Year of Detection
LAC, 1991–2005

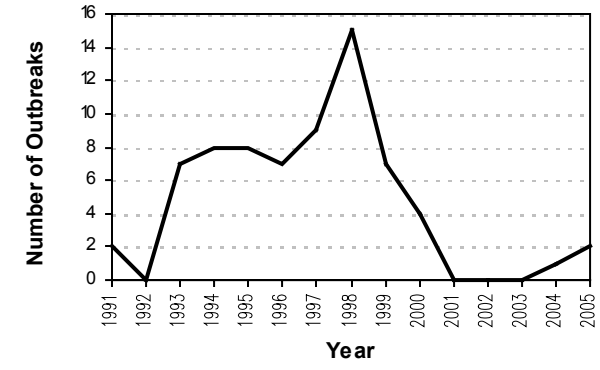
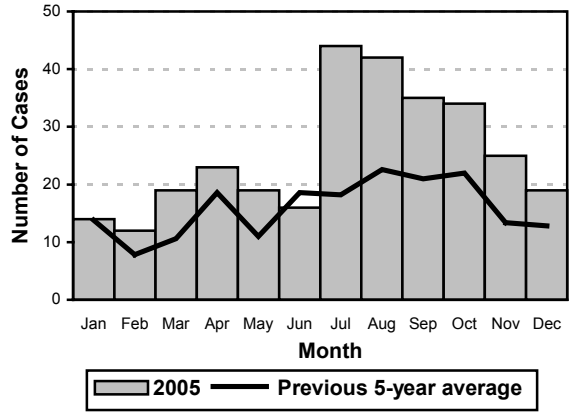


Figure 3
SE Cases by Month of Onset
LAC, 2005



In 2005, confirmed outbreak-related SE cases accounted for only a very small proportion (3%, n=9) of all confirmed SE cases (N=302). Two of the four *Salmonella* outbreaks investigated by LAC Public Health in

2005 were due to SE (Figure 2 and Table 1) and both were restaurant related outbreaks. In the first one, the source was a dessert containing raw eggs—the restaurant used eggs in the shell for this product. In the other outbreak, the source was not determined, but was suspected to be an ingredient used in multiple menu items such as tomatoes.

Table 1. *Salmonella Enteritidis* Outbreaks in Los Angeles County, 2005

Onset Month	Outbreak Setting	Number Ill	Number Culture Positive	Phage Type	Suspected Vehicle	Suspected Source
July	Restaurant	11	6	6a	Dessert	Raw Eggs in the Shell
September	Restaurant	19	3	6a	Unknown	Unknown

SE increased in the 1990s due to contamination of shell eggs [1]. There is concern that the recent increase in SE indicates resurgence similar to that of the 1990s in a food source such as eggs or poultry. ACDC continues to monitor sporadic cases and outbreaks of SE and works with LAC Environmental Health, private industry groups, and the state and federal government to promote food safety. ACDC supports activities aimed at improvement of egg production, egg distribution processes and consumer education in order to decrease the risk of SE infection.

REFERENCES

1. ACDC. Study of epidemic *Salmonella Enteritidis* in Los Angeles County. Acute Communicable Disease Control Special Studies Report 1994.