

## Medical News

EDITED BY GINA PUGLIESE, RN

### Outbreak of Shigellosis Aboard Commercial Airline

An international foodborne outbreak of shigellosis was identified after the occurrence of an index outbreak involving a professional football team. Twenty-one (32%) of 65 football players and staff developed shigellosis associated with consuming cold sandwiches prepared at the airline flight kitchen of a Minnesota-based airline. An intensive investigation identified 240 passengers with confirmed or probable shigellosis on 219 flights to 24 states, the District of Columbia, and four countries between September 14 and October 13, 1988. An outbreak-associated strain of *Shigella sonnei* was isolated from football players and staff, airline passengers, and flight attendants. It was believed that cold food items were contaminated during processing by one or more foodhandlers who acquired *S sonnei* infection in the community. Several foodhandlers admitted to working while they had diarrhea. Employees did not always wash their hands before beginning work, after eating or using the toilet facilities, or as often as necessary.

The authors noted that inadequate cleaning and sanitizing of equipment produced conditions that were conducive to the transmission of *S sonnei* and an apparent failure of adequate training and supervision of food handlers contributed to this outbreak. The authors recommend that all establishments that mass-produce cold food items should perform aggressive surveillance for diarrheal illness, exclude ill employees from handling food, and provide strict supervision of handwashing practices. Further, prevention of such outbreaks may require reduction of hand contact in the preparation of cold food items.

The potential for outbreaks of shigellosis associated with cold food served on commercial airlines is increased because of the lack of onboard refrigeration facilities, inadequate handwashing sinks, and faucet designs that require one hand to hold the faucet open while rinsing the other hand.

Only 23 outbreaks of foodborne illness associated with commercial airline flights have been reported worldwide from 1947 through 1984. Recognition of

these outbreaks was facilitated by one of three factors: 1) attack rates exceeding 20% of the passengers or crew; 2) incubation periods short enough that passengers became ill during or shortly after the flight; or 3) the occurrence of an illness, such as cholera or typhoid fever, that is likely to be investigated by public health officials.

FROM: Hedberg CW, Levine WC, White KE, et al. An international foodborne outbreak of shigellosis associated with a commercial airline. *JAMA* 1992;268:3208-3212.

### Nosocomial Measles Persists Despite Sharp Decline in Total Cases

The total number of measles cases declined dramatically in 1992 to 2,200 cases compared to almost 10,000 cases in 1991 and 27,000 cases in 1990. The tremendous immunization effort over the past two years is believed to have contributed to this reduction in cases, with 400,000 more doses of measles vaccine given to one-year-old children in 1991 compared to 1988. However, because almost 50% of the cases are in children under five years of age, the cohorts will be refilled quickly if vaccination efforts do not continue.

Despite the overall decline, transmission in medical settings (emergency rooms and physicians) continues. This accounted for 617 cases in 1991, representing more than 6% of all reported cases. This was the highest proportion of reported measles infection in this setting since detailed information on sites of transmission became available in 1985. The proportion of cases continued to be high in 1992 with 14% of cases in medical settings, representing more than 300 cases. In medical settings, more than half of the nosocomial cases are usually in patients and many of these are preschool-aged children waiting in emergency rooms or clinics.

Nonimmunized healthcare workers exposed to infected patients also are at risk—indeed, most healthcare workers who acquire measles in medical settings are unvaccinated. The CDC recommends