

## Salmonellosis in the Barbadian population

*Carmeta Douglin*

Salmonellosis is increasing worldwide and is affecting millions of people. Because the effects of gastroenteritis caused by *Salmonella* species are usually mild, there is a great deal of under-reporting. Barbados needs to monitor salmonellosis carefully for the sake of its own population and for the preservation of its reputation as a "tourist haven". In this country over the period 1980-1983 259 isolates of *Salmonella* spp. were obtained from 7,031 specimens sent to the National laboratories (incidence rate 3.7%; crude morbidity rate 1.0/1000 population). The 1990-93 period showed a significant increase in the rate of *Salmonella* isolates when compared to 1980. *Salmonella* spp. were isolated from 468 of 9,372 specimens sent to the laboratory (incidence rate 5%; crude morbidity rate 1.8/1000 population;  $p < 0.0001$ ). Gastroenteritis in children has always been a concern of the Barbados Ministry of Health, and this study shows that 59.8% (1980-83) and 50.9% (1990-93) of the cases reported were children under five years old. Salmonellosis was found throughout the island, but the largest concentration of cases was reported from the city parish where the population density was highest (50% in 1980 and 48% in 1993). The crude morbidity rate in this

parish was 47.4/1000 compared to the smallest rate of 0.4/1000 in St. Joseph. Four major outbreaks were identified over the 1990-93 period affecting tourists and nationals and claiming two lives. Eggs were incriminated as the source of the organism in two of the outbreaks even though laboratory confirmation was not possible. *Salmonella typhimurium* was the causative factor in two of the major outbreaks and was the most prominent serotype isolated over the years 1990-93 (32% of all isolates). *S. enteritidis* the next most frequently isolated serotype (18%) was responsible for the majority of cases hospitalized (51.5%). The increasing number of cases of salmonellosis in the Barbadian population has not been linked directly to poultry and egg contamination. However, data from the Veterinary laboratory has shown that chickens are the animals from which *Salmonella* spp. is most often recovered and the serotypes identified are similar to those identified from human cases of salmonellosis. The situation warrants further research and implementation of stricter public health control measures.