Epidemiologic studies of Escherichia coli diarrheal infections in a low socioeconomic level peri-urban community in Santiago, Chile

Levine, Myron M.

Ferreccio, Catterine

Prado, Valeria

Cayazzo, Marisol

Abrego, Paulina

Martinez, Juan

Maggi, Leonardo

Baldini, Mary M.

Martin, Wendy

Maneval, David

Kay, Bradford

Guers, Linda

Lior, Hermy

Wasserman, Steven S.

Nataro, James P.

The incidence of diarrhea due to six categories of diarrheogenic Eschenchia coli was determined in two pediatric cohorts in a low socioeconomic level community in Santiago, Chile, with access to chlorinated water. An age cross-sectional cohort of 340 children aged birth to 47 months was assembled. A newborn cohort was assembled by enrolling 10-12 newborns monthly for 12 months. Episodes of diarrhea were detected by twice weekly household visits. E. coli from stool cultures of cases and matched controls were hybridized with DNA probes specific for enterotoxigenic, enteroinvasive, enteropatho-genic, enterohemorrhagic, enteroaggregative, and diffuse adherence E. coli. Overall, the incidence of diarrhea was low (2.1 episodes/infant/year). Nevertheless, a putative E. coli enteropathogen was found in a large proportion of diarrheal episodes, particularly during the

summer. In both cohorts, enterotoxigenic E. coli were important pathogens. Enteropathogenic E. coli were incriminated during the