



## Emerging and Reemerging Infectious Diseases, Region of the Americas

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### **Outbreak of Acute Diarrhea in the Town of Rojas, Buenos Aires Province, Argentina**

This past 25 March, PAHO received a report of an outbreak of acute diarrhea in the town of Rojas, Province of Buenos Aires, Argentina. This discovery spurred intensive surveillance activity for waterborne diseases, which include acute diarrheas, viral hepatitis, and hemolytic uremic syndrome (HUS).

By 6 April 2004, a total of 3,165 cases of diarrhea had been reported, with a cumulative incidence of 1,385 for every 10,000 inhabitants, with 102 cases requiring hospitalization. The highest incidence rates occurred between 29 March and 1 April; with the trend diminishing from that time to the date of the report (see Figure 1).

The population most affected has been children between the ages of 1 and 4.

According to the laboratory results available to date, *Shigella* has been isolated in 24 of the 159 feces cultures carried out (15 with *Shigella flexneri* and 8 with *Shigella sonnei*), and *Escherichia coli* in 12 (with one isolated case of enterotoxigenic *Escherichia coli*). Three suspected cases of Hepatitis A were detected, two of which were ruled out and one confirmed. Up to now, there have been no reported cases of HUS.

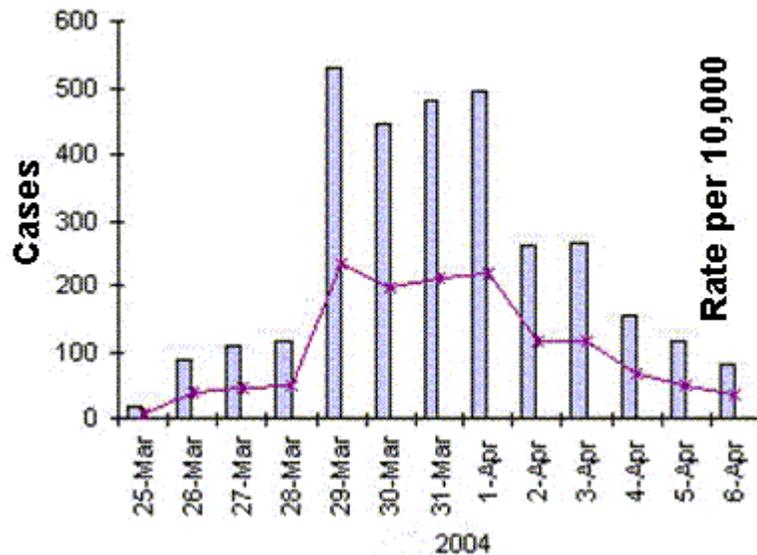
Bacteriological analysis of the water from the Partido de Rojas system was conducted between 21 March and 1 April, where the presence of coliforms was above the maximum acceptable levels; some samples also showed *E. coli*.

Inadequate maintenance and deteriorated lines in the system supplying drinking water to the town of Rojas caused the water to be contaminated with bacteria pathogenic to humans, resulting in the outbreak of diarrhea.

Among the prevention and control measures, a vaccination campaign against Hepatitis A was carried out in Rojas among children between the ages of 1 and 9 who had not received prior immunization. In addition, safe water was distributed and antimicrobial treatment was applied when needed, being the most frequently used Ciprofloxacin, Metronidazol, Ceftriaxone and Trimetoprim sulfametoxazole.

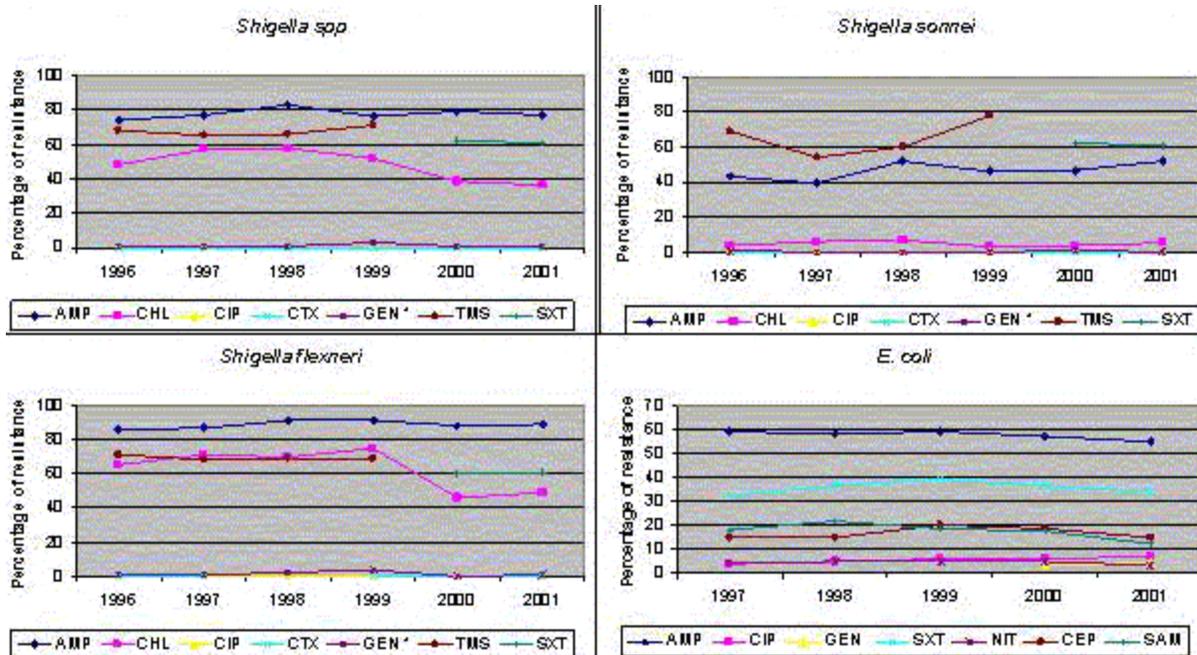
Laboratory identification of species of enteropathogenic bacteria and the determination of sensitivity profiles is of vital importance to adequate treatment of cases and to prevent future complications. Since 1996, Argentina has been producing resistance profiles for the main pathogens, among which are *Shigella* and *E. coli* (see the four figures below). This information is very useful to choose the most cost-effective treatment, for the etiological treatment or for

**Figure 1: Acute Diarrhea Cases and Rates (Partido de Rojas, Buenos Aires Province, Argentina, 26 March–6 April 2004)**



Source: Report to PAHO by the Ministry of Health of Argentina.

the empirical treatment of the diarrheal syndrome once the more prevalent bacteria is known.



Source: Data compiled by Pan American Health Organization / World Health Organization (PAHO/WHO), Communicable Disease Unit, Emerging and Reemerging Diseases, based on annual reports from the countries participating in the Antimicrobial Resistance Surveillance Network.

#### Additional Information

- [Dirección de Epidemiología](#) (Department of Epidemiology). Buenos Aires: Ministerio de Salud de la República de Argentina (Ministry of Health of the Republic of Argentina). (in Spanish)
- [OPS/OMS-Argentina](#) (PAHO/WHO-Argentina). Buenos Aires: Country Office in Argentina of the Pan American Health Organization / World Health Organization (PAHO/WHO). (in Spanish)
- [Shigella](#). Washington, DC: Pan American Health Organization / World Health Organization (PAHO/WHO).
- [Antimicrobial Resistance](#). Washington, DC: Pan American Health Organization / World Health Organization (PAHO/WHO).

#### Sources

- Report to PAHO by the Ministry of Health of Argentina.
- Annual Country Reports of the Antimicrobial Resistance Surveillance Network.