

## Mening002- Epidemics of meningococcal disease serogroup C in Salvador, Brazil

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Epidemics of bacterial meningitis caused by *Neisseria meningitidis* were first reported in Brazil in 1920. Following the predominance of meningococcal serogroup B during the 1990s, serogroup C outbreaks emerged throughout Brazil after 2000, gradually replacing B as the most prevalent serogroup. During the first semester of 2010, unusually high numbers of meningococcal disease cases and deaths among persons older than 10 years occurred in the city of Salvador, leading the state immunization program to conduct mass vaccination of city residents 10 to 24 years of age from May to August 2010. We analyzed data from meningitis surveillance in Salvador in 2010. **Methods:** Reporting of suspected cases of meningitis is mandatory in Brazil. Suspected cases of meningitis are reported by public and private health facilities to municipal and state health departments using standardized case report forms for entry of data into the national Notifiable Diseases Information System [*Sistema de Informação de Agravos de Notificação* (SINAN)]. Case report forms include patient identification, age, gender, clinical signs and symptoms, samples collected, diagnostic tests performed, antibiotic susceptibility cerebrospinal fluid (CSF) evaluation. Laboratory confirmation of meningococcal disease classically required the isolation of the organism from one or more normally sterile body sites, primarily cerebrospinal fluid (CSF) or blood. **Results:** From 2000 to 2010, meningococcal serogroup C disease increased substantially in Salvador, from 0.82 to 3.67 cases per 100,000 populations. In the epidemics period (2010), of 149 cases of meningococcal disease (63% male and 37% female), 110 were serogroup C with 20 deaths (22% case-fatality) registered. The most prevalent laboratory surveillance methods were latex (46%) and culture (35%). According to age group, the highest incidence (cases per 100,000 population) of serogroup C were 5-9 years (6.64) following by 20-24 years (6.02). Others age groups also have significant incidences: <5 yrs (3.12), 10-14 yrs (5.40), 15-19 (4.36), >25 yrs (2.62). **Conclusion:** The increased incidence of laboratory-confirmed meningococcal disease in Salvador was mostly attributable to an increase in serogroup C cases. High-quality laboratory surveillance is essential for monitoring the epidemiology of meningococcal disease, especially for control epidemics with immunization program. Continuous surveillance in Brazil for meningococcal disease and strain characterization is needed to establish a baseline for vaccine impact assessments. **E-mail:** criswcardoso@yahoo.com.br