

## **Recent Outbreaks**

Outbreaks of meningococcal disease have occurred among college/university students in the USA, UK, and other countries. These outbreaks, like those in junior and senior high schools, usually consist of a few cases occurring within a short period of each other. Disease is almost always caused by group C strains. The death rate because is usually high because of the high proportion of cases with meningococcal septicemia.

Carriage of meningococci increases rapidly among first year students during the first weeks of the term at university. The risk of meningococcal disease is greatest for first year students living in dormitories or residences. Students living off campus and in upper classes do not have any increased risk of disease. Other risk factors for meningococcal disease among college students include cigarette smoking (both active and passive), kissing, and attending bars.

In the United States, the US Public Health Service has recommended that parents and new university students should be informed of the risks of meningococcal disease and the benefits of vaccination. Some universities have made immunization mandatory for new students.

The National Advisory Committee on Immunization of Health Canada has recommended that immunization against group C meningococcal disease should be considered for students living in dormitories or residence accommodations. For such students, the risk is mainly from serogroup C disease and vaccination with a single dose of a meningococcal polysaccharide vaccine is appropriate. The meningococcal C conjugate vaccine may be preferred because of its ability to induce immunologic memory and the enhanced antibody levels achieved by the conjugate compared to the polysaccharide vaccines leading to more prolonged duration of protection. However, the polysaccharide vaccine provides protection against groups A, Y, and W135 in addition to group C. Some universities in Canada have implemented programs to enable students to purchase and receive the polysaccharide vaccine through the student health services.