## The 2001 Serological survey in the Czech Republic – Hib Invasive disease *haemophilus influenzae* b

Lebedová V., Křížová P.

NRL for Haemophilus Infections, National Institute of Public Health, Prague, Czech Republic

## **SUMMARY**

Dynamics in total antibody levels against Haemophilus influenzae b (Hib) among the Czech population were monitored for the first time within the 2001 serological survey. In total, 2,479 non-vaccinee sera and 65 vaccinee sera from the population of age groups 1-39 years were tested. The total anti-Hib antibody levels determined by means of ELISA were higher than 0.15  $\mu$ g/ml for all of the sera tested. Levels of 1  $\mu$ g/ml or higher were recorded for 97% and 99% of vaccinee and non-vaccinee sera, respectively.

The non-vaccinees showed the highest rates of levels below 1 µg/ml in the age groups of 1-, 2-, 6- and 12-year-olds (4%, 7%, 3% and 3%, respectively). Only one child aged 1 year had a level below 1 µg/ml among the vaccinees. Levels of 2 µg/ml and higher were found in 89% and 91% of non-vaccinee and vaccinee sera, respectively. The non-vaccinees showed the highest rates of levels below 2 µg/ml in the age groups of 1-, 2-, 3-, 4- and 6-year-olds (46%, 37%, 22%, 20% and 18%, respectively), the other age groups were characterized by lower rates (2-13%). Levels below 2 µg/ml were found in 1-, 2-, and 4-year-old vaccinees (25%, 4% and 9%, respectively). In conclusion, it can be stated that the immunity of most of the Czech population is very good. Nevertheless, children under 6 years of age are at highest risk as also confirmed by the programme of Hib invasive disease surveillance. As many as 94 cases of Hib invasive diseases were recorded in the Czech Republic in 2001, 82 (87%) of them in children aged between 0 to 6 years, with only sporadic cases being detected in the other age groups.

Key words: Haemophilus influenzae b (Hib), antibody, ELISA

**Address for correspondence:** V. Lebedová, National Institute of Public Health, Šrobárova 48, 100 42 Prague 10, Czech Republic. E-mail: lebedova@szu.cz

<u>Zpět</u>