LAYOUT OF ABSTRACTS

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Decline of invasive meningococcal disease in Switzerland between 2001 and 2004

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Introduction
Switzerland has been producing statistics on invasive meningococcal disease (IMD) since 1974. Like in other European countries, the incidence of IMD rose in the late 90s and peaked at 2.5/100000 in 2000 with serogroup C accounting for 61% of cases. Meningococcal immunisation has so far only been recommended for medical high risk groups, laboratory personnel, travellers to countries with epidemic IMD, military recruits and close contacts of primary cases.

Aims
Our aim is to present methods, results and conclusions of Swiss IMD surveillance between 2001 and 2004 as well as some recent changes in the vaccination policy.

Methods
IMD is notifiable to cantonal and federal health authorities within 24 hours of diagnosis by the treating physician and the laboratory confirming the diagnosis. In 70 to 80% of cases, meningococcal strains isolated at peripheral laboratories are sent to the NCM for serotyping, genotyping and antimicrobial resistance testing. Data are collated, analysed and published in weekly and annual reports by the SFOPH which also receives the number of sold vaccine doses from the vaccine manufacturers on a voluntary basis.

Results
From 2001 to 2004, the annual number of notified IMD cases decreased from 168 (2.3/100000; 95% CI 2.1-2.9) to 81(1.1/100 000; 95% CI 0.9-1.4). Serogroups B and C accounted for about 90% of cases. The incidence of serogroup C disease fell from 1.2 (95% CI 1.0-1.5) to 0.3/100000 (95% CI 0.2-0.5) whereas the incidence of serogroup B disease remained stable ranging between 0.6 and 0.8/100000. The age-groups most affected by IMD were infants, children aged 1 to 4 and adolescents aged 15 to 19 with mean annual incidence rates of 9.2, 3.0 and 2.1/100000, respectively, for serogroup B disease, and 5.2, 2.8 and 2.8/100000, respectively, for serogroup C disease. From 2001 to 2004, group C IMD decreased significantly only among the 15 to 19 year-olds (from 6.7, 95% CI 4.7-9.7, to 1.4, 95% CI 0.6-3.1), but a similar trend was observed in all age-groups. A decrease was also found in the proportion of phenotypes C:2b:P1.2,5 (mostly MLST 8) and C:2a:P1.2,5 (mostly MLST 11) which dropped from 44 (64%) of 69 typed group C isolates in 2001 to 6 (35%) of 17 such isolates in 2004 ($p=0,035$, Chi^2 test for trend). While the annual number of sold doses of meningococcal polysaccharide vaccine diminished between 2001 and 2003, this number increased from 20000 to 57000 for group C conjugate vaccine, largely due to the more than 90% uptake among military recruits aged 19 to 20.

Conclusions
Between 2001 and 2004, Switzerland saw a decline of overall IMD incidence by 52%. It was largely attributable to a 75% drop of group C disease incidence affecting all age-groups but being especially pronounced among adolescents aged 15 to 19. The recently introduced immunisation of some 20000 military recruits per year is unlikely to have caused a herd immunity effect of this magnitude. The reduced prevalence of the formerly predominating phenotypes C:2b:P1.2,5 and C:2a:P1.2,5 can therefore be considered a mostly natural phenomenon. The current epidemiology of IMD in Switzerland does not justify routine meningococcal immunisation. However, the Swiss Federal Immunisation Committee has decided to recommend group C meningococcal conjugate vaccine as a reasonable complementary immunisation at 12 months and/or 11 to 15 years of age whenever parents are unwilling to accept their child's low but but not entirely negligible risk of contracting group C IMD.

The deadline for submission of abstracts is **23rd May, 2005.** Authors will be notified of whether or not abstract has been selected, and the form of the presentation (oral or poster) by mid-June.
Authors of accepted abstracts must be registered for the conference by 30th June 2005.

Abstracts should be submitted to:

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