Department of Vaccines

The Finnish vaccination programme and high-quality health care guarantee all Finnish children protection against many serious infectious diseases.

The general vaccination programme offered to all children provides protection against nine diseases. Seven of these have been nearly eliminated from Finland. For example, in the 2000s children no longer get measles, mumps or rubella like many of their parents did only a few decades ago. Tuberculosis and whooping cough cannot be completely eliminated by vaccinations, but the most dangerous forms in small children can normally be prevented.

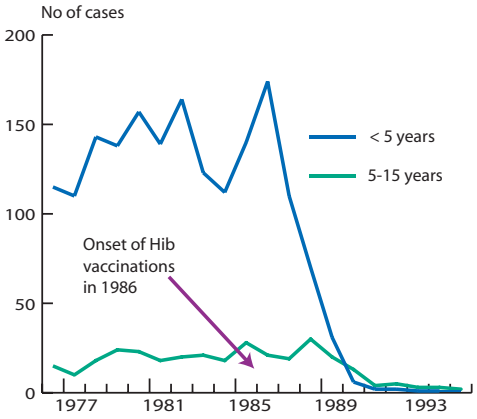
Vaccinations provide long-lasting immunity against infectious diseases, much more safely than the diseases themselves. The majority of the vaccinated experience no adverse symptoms, or the symptoms are mild and heal spontaneously. The actual disease, however, may cause serious complications or at least an illness that lasts for several days. Vaccination is a natural and cost-efficient way to protect both individuals and the entire society against infectious diseases.

The objective

The objective of the Department of Vaccines is to give the population the best possible protection against infectious diseases with vaccines.

The means include

- Acquiring and distributing the vaccines included in the vaccination programme
- Studying the effects and the best possible use of vaccines
- Participating in the development of new vaccines that have significance for public health



The incidence of infections caused by Haemophilus influenzae type b bacterium in children aged 0–15 years in Finland, 1977–2003. This bacterium is known to cause meningitis, epiglottitis and blood poisoning.

The main projects

Development and implementation of the vaccination programme
The Department of Vaccines produces expert material for decision makers relating to the content of the vaccination programme, gives vaccination recommendations, obtains and distributes the vaccines used in the general vaccination programme and promotes knowledge of vaccinations among health care professionals and citizens.

Vaccine safety surveillance
The assessment of suspected adverse effects reported by health care professionals constitutes a central part of practical vaccine safety. The Vaccine Safety Officer provides a written feedback containing an assessment of the incident and recommendations concerning further vaccinations. Under the National Agency for Medicines, the Vaccine Safety Unit also controls the quality of the batches of vaccines to be sold or distributed in Finland.

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Prevention of pneumococcal diseases with vaccines

Each year, pneumococcus causes 500–600 cases of sepsis, about 20,000 cases of pneumonia and about 30,000 ear infections in Finland. Pneumococcal diseases are most common in small children and elderly people. The Department of Vaccines is currently involved in three research projects studying the ability of new pneumococcal vaccines to prevent pneumococcal diseases.

Prevention of children's ear infections with vaccines (FinOM)

The FinOM studies conducted in Tampere in 1994–1999 examined the frequency and risks of otitis media in small children and the efficacy of a new pneumococcal conjugate vaccine in the prevention of otitis media. The vaccine reduced the number of pneumococcal ear infections by 34%, but it reduced the total number of all ear infections only by 6%. The analysis of data continues in order to investigate the possibilities to prevent ear infections.

Prevention of children's pneumonia with vaccines (ARIVAC)

ARIVAC is an international project coordinated by the Public Health Institute. Its objective is to study the effectiveness of an 11-valent pneumococcal conjugate vaccine against pneumonia in Philippine children. The trial will also provide information on the vaccine's ability to make the body resistant to pneumococcus, the vaccine's effects on herd immunity and nasopharyngeal pneumococcal carriage, and the vaccine's cost-benefit ratio. During three and a half years, 12,190 children took part in this randomised, placebo-controlled effectiveness trial.

The efficacy of a pneumococcal vaccine against children's ear infections was studied in Tampere.

Prevention of pneumonia in elderly people with vaccines (FinCAP)

In the spring of 2005, a study was launched in Tampere to investigate the frequency and causes of pneumonia in people aged 65 or more. The objective is particularly to study the role of pneumococcus as the cause of pneumonia. Later the objective will be to study the efficacy of a new pneumococcal vaccine, currently at the development stage, in the prevention of pneumonia in elderly people.