



## A CUP OF HEALTH WITH CDC

### *Fighting a Bad Bug*

*Pneumonia Hospitalizations Among Young Children After Introduction of Pneumococcal Conjugate Vaccine — United States, 1997–2006*

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[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC — safer, healthier people.

[Dr. Gaynes] Welcome to *A Cup of Health with CDC*, a weekly feature of the MMWR, the Morbidity and Mortality Weekly Report. I'm your host, Dr. Robert Gaynes.

*Streptococcus pneumoniae* is a very bad bacterial bug that causes all kinds of health problems, from sinus and ear infections to meningitis and brain abscesses. But it's best known as the cause of pneumonia, particularly in young children. The pneumococcal conjugate vaccine, has affected the number pneumonia hospitalizations in the U.S.

Dr. Pekka Nuorti is a medical epidemiologist with CDC's National Center for Immunization and Respiratory Diseases. He's joining us today to discuss the effectiveness of the pneumococcal conjugate vaccine. Welcome to the show, Pekka.

[Dr. Nuorti] Thanks for having me, Bob.

[Dr. Gaynes] Pekka, how many children are hospitalized each year with pneumonia?

[Dr. Nuorti] Bob, pneumonia is one of the most common causes of hospitalization among young children. And each year, about 1 out of 100 children age less than 2 years gets hospitalized with pneumonia.

[Dr. Gaynes] So what age children are most susceptible to this *Streptococcus pneumoniae*?

[Dr. Nuorti] It's primarily very young children whose immune systems are immature, and by that we mean children who are less than 2 years of age.

[Dr. Gaynes] How serious of a condition is pneumonia in these children?

[Dr. Nuorti] The seriousness of the infection varies, but it can be very serious and obviously result into hospitalization. Some of the symptoms that indicate a very serious infection are difficulty breathing, rapid breathing rate, high fever, and cough.

[Dr. Gaynes] When did the pneumococcal conjugate vaccine become available?

[Dr. Nuorti] The pneumococcal conjugate vaccine was licensed in the U.S. in the year 2000.

[Dr. Gaynes] And how often is the vaccine given?

[Dr. Nuorti] The vaccine is given in a series of four doses. Three of those doses are given during the first year of life and then a fourth dose, called the booster dose, is given during the second year of life.

[Dr. Gaynes] How effective has the vaccine been against pneumonia?

[Dr. Nuorti] Since the vaccine was licensed in 2000, the rate of hospitalization in young children has decreased by about 35 percent.

[Dr. Gaynes] Pekka, does the vaccine help prevent other illnesses caused by *Streptococcus pneumoniae*?

[Dr. Nuorti] It actually does, it helps especially against the most severe forms of pneumococcal disease. Those are namely bloodstream infections and meningitis. These serious infections have decreased by about 80 percent among young children.

[Dr. Gaynes] Where can listeners get more information about the pneumococcal conjugate vaccine?

[Dr. Nuorti] The CDC website address is [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines).

[Dr. Gaynes] Thanks, Pekka. I've been talking today with Dr. Pekka Nuorti, a researcher with CDC's National Center for Immunization and Respiratory Diseases, about the effectiveness of the pneumococcal conjugate vaccine.

Remember parents, the pneumococcal conjugate vaccine will decrease pneumonia and other serious infections in your children. So talk to your healthcare provider today about this important vaccine.

Until next time, be well. This is Dr. Robert Gaynes for *A Cup of Health with CDC*.

[Announcer] For the most accurate health information, visit [www.cdc.gov](http://www.cdc.gov) or call 1-800-CDC-INFO, 24/7.