

ESTIMATES OF THE HEALTH AND ECONOMIC BURDEN OF PNEUMOCOCCAL DISEASES ATTRIBUTABLE TO V116, PCV24 AND PCV20 SEROTYPES AMONG ADULTS IN FINLAND

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V116 and PCV24 are investigational vaccines developed to protect against pneumococcal disease (PD). V116 is specifically designed for adults and includes eight unique serotypes not in any currently licensed vaccine. This study quantified the health and economic burden of PDs attributable to V116, PCV24 and PCV20 serotypes.

Methods: Assuming same serotype distribution for pneumococcal pneumonia as reported in 2022 for invasive PD, a published Markov model estimated lifetime PD cases, deaths, and associated direct medical costs for V116, PCV24 and PCV20 from a Finnish perspective for adults (≥65 years). Costs were discounted at 3.0% annually.

Results: The model estimated ~111 000 lifetime PD cases, ~9 900 lifetime PD deaths and ~204 million € direct medical costs attributable to serotypes included in V116. Compared to PCV24, V116 serotypes accounted for ~22 700 more cases of PD, 2 000 more deaths and 42 million € more direct medical costs. Compared to PCV20, V116 serotypes accounted for 28 700 more cases of PD, 2 500 more deaths and 53 million € more direct medical costs.

Conclusions: In Finland, V116 serotypes are associated with 20,5% and 25,9% higher health and economic burden compared to PCV24 and PCV20, respectively. The eight unique serotypes included in V116 accounted for 20,5% of the disease burden. The serotype composition of V116 designed specifically for adults demonstrates the highest disease coverage in this population. Compared to PCV20 and PCV24, V116 has the potential to reduce the health and economic burden associated with PD among older adults in Finland.