Results from 2000 to 2011, 10,305 S. pneumoniae isolates were submitted that were obtained from sterile sites. These included: 9,527 (92.5%) from blood cultures, 297 (2.9%) from CSF, and 208 (2.0%) from pleural fluid. Overall, 61% of isolates were from Ontario, 18% from the Prairies/Northwest Territories, 8.8% from Atlantic provinces, 6.7% from Quebec, and 5.5% from British Columbia/Yukon.

PCV7 was authorized for use in Canada in June 2001, and introduced into publicly funded infant immunization programs in provinces and territories between September 2001 and January 2005. Coincident with the introduction of PCV7, the proportion of strains due to serotypes included in PCV7 declined in all age groups (Figure 1). As shown in Figure 5, all amoxicillin resistant isolates are of serotypes 19A and 19F.

Antibiotic resistance rates are increasing over time, but are different in different serotypes, and resistance rates differ by age. Thus, changes in resistance depend on the interaction between selective pressure for resistance, and changes in antibiotic susceptibility testing.

As shown in Figure 6, antibiotic resistance in adult sterile site isolates of pneumococcal serotypes not included in any conjugate vaccine, CBSN, surveillance 2000-2011.