



***Streptococcus pneumoniae* Serotype Analysis in Arizona, 2008**  
**Arizona Department of Health Services**  
**Infectious Disease Epidemiology and Investigations Section**

Serotype analysis for invasive *Streptococcus pneumoniae* cases  $\leq 5$  years old submitted to the Arizona State Health Laboratory (ASHL), 2008.

<b><u>SEROTYPE</u></b>	<b><u>COUNT</u></b>	<b><u>PERCENT</u></b>
Serotype 1	3	2.2%
Serotype 3	1	0.7%
Serotype 5	12	8.8%
Serotype 6	1	0.7%
Serotype 6B	1	0.7%
Serotype 7	2	1.4%
Serotype 7F	16	11.7%
Serotype 8	1	0.7%
Serotype 11	1	0.7%
Serotype 12	4	2.9%
Serotype 12B	1	0.7%
Serotype 12F	1	0.7%
Serotype 15	5	3.6%
Serotype 15B	2	1.4%
Serotype 19	5	3.6%
Serotype 19A	13	9.5%
Serotype 22	1	0.7%
Serotype 23	1	0.7%
Serotype 33	2	1.4%
Serotype 33A	1	0.7%
Not Typeable	11	8.0%
Unknown	52	38.0%
<b>TOTAL:</b>	<b>137</b>	<b>100%</b>

Serotype frequencies for invasive *Streptococcus pneumoniae* cases  $\leq 5$  years old reported to the Arizona Department of Health Services (ADHS) in 2008.

In total, 137 invasive *Streptococcus pneumoniae* cases  $\leq 5$  years old were reported to Arizona Department of Health Services (ADHS) in 2008. The most frequent serotype for invasive cases  $\leq 5$  years old was serotype 7F at 11.7%, or 22% of cases with a known serotype. The pneumococcal conjugate vaccine (PCV7) is a 4-dose series recommended since 2000 for children younger than 2 years of age. This vaccine contains serotypes 4, 9V, 14, 19F, 23F, 18C, and 6B. Arizona had one reported invasive *Streptococcus pneumoniae* case with a vaccine-preventable serotype in 2008 (6B). An isolate was not sent to the ASHL for serotyping analysis for 38.0% of the invasive cases, listed here as an unknown serotype.

6/22/2009

Serotype analysis for invasive *Streptococcus pneumoniae* cases >5 years old submitted to the Arizona State Health Laboratory (ASHL), 2008.

<b>SEROTYPE</b>	<b>COUNT</b>	<b>PERCENT</b>
Serotype 1	2	0.2%
Serotype 3	68	7.2%
Serotype 4	10	1.1%
Serotype 5	30	3.2%
Serotype 6	21	2.2%
Serotype 7	100	10.6%
Serotype 8	39	4.1%
Serotype 9	14	1.5%
Serotype 10	10	1.1%
Serotype 11	27	2.9%
Serotype 12	46	4.9%
Serotype 14	8	0.8%
Serotype 15	24	2.5%
Serotype 17	2	0.2%
Serotype 18	5	0.5%
Serotype 19	95	10.1%
Serotype 20	4	0.4%
Serotype 22	18	1.9%
Serotype 23	22	2.3%
Serotype 33	13	1.4%
Serotype 37	4	0.4%
Not Typeable	94	10.0%
Unknown	284	30.2%
<b>TOTAL:</b>	<b>940</b>	<b>100%</b>

Serotype frequencies for invasive *Streptococcus pneumoniae* cases >5 years old reported to the Arizona Department of Health Services (ADHS) in 2008.

For 2008, 940 invasive *Streptococcus pneumoniae* cases >5 years old were reported to ADHS. This represents 87.3% (940/1077) of all invasive *Streptococcus pneumoniae* cases reported in 2008. The most frequent serotypes for invasive cases >5 years old were serotype 7 (10.6% of the reported cases or 17.8% of those with known serotypes) and serotype 19 with 10.1% of the reported invasive cases. For invasive cases > 5 years of age, approximately 40% of them did not have a determined serotype. During 2008, the state laboratory conducted serotyping for all ages but only determined the factor types for cases ≤5 years. The factor type is important for fully characterizing the vaccine strains, and thus, we cannot determine whether invasive *Streptococcus pneumoniae* cases >5 years were infected with a strain found in the pneumococcal conjugate vaccine (PCV7).