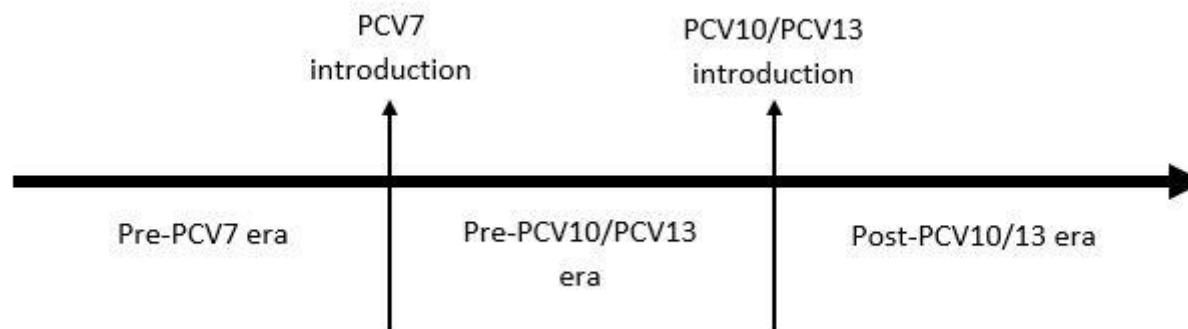


Divergent serotype replacement trends and increasing diversity in pneumococcal disease in high income settings reduce the benefit of expanding vaccine valency: Supplementary Material

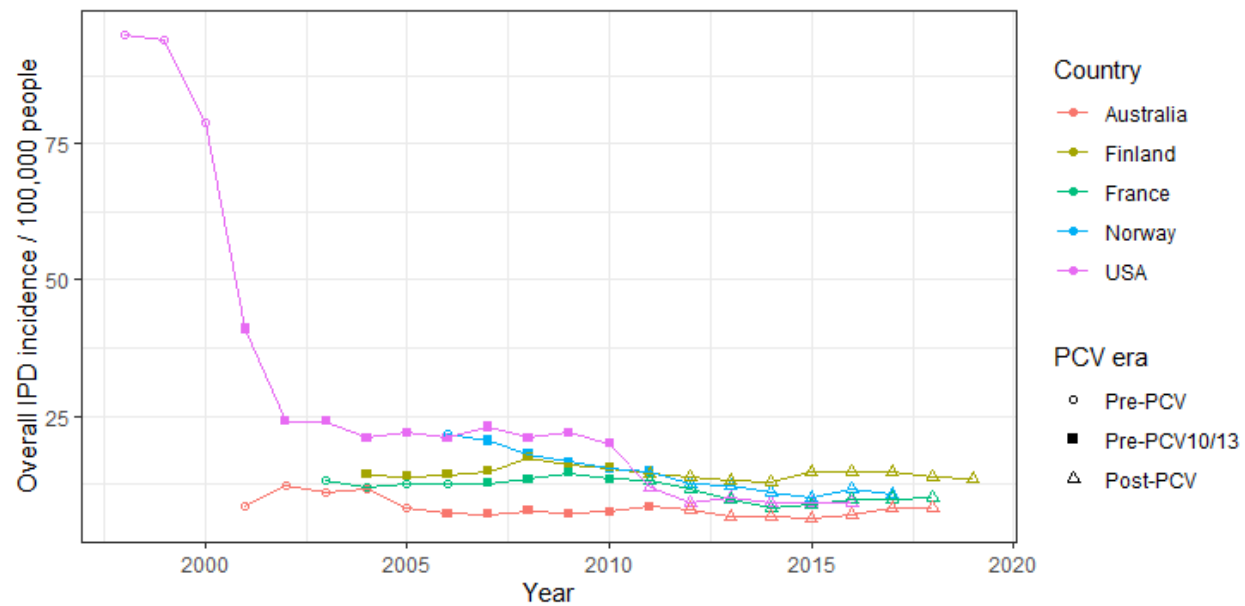
Alessandra Lochen¹, Nick Croucher^{1,2}, Roy Anderson¹

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²Corresponding author: n.croucher@imperial.ac.uk, MRC Centre for Global Infectious Disease Analysis, Norfolk Place, Imperial College London, London W2 1PG, United Kingdom



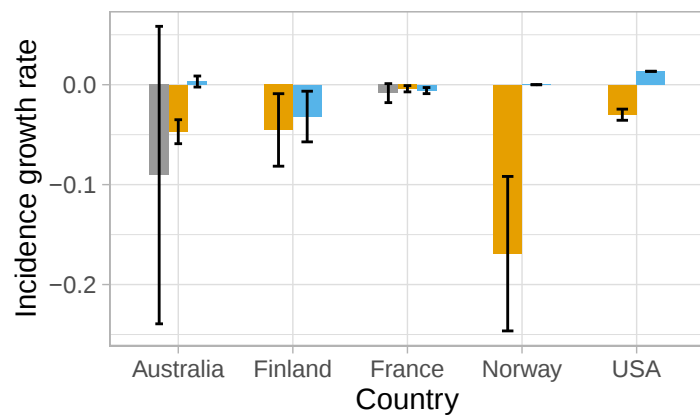
Supplementary Figure 1: Timeline of PCV implementation eras.



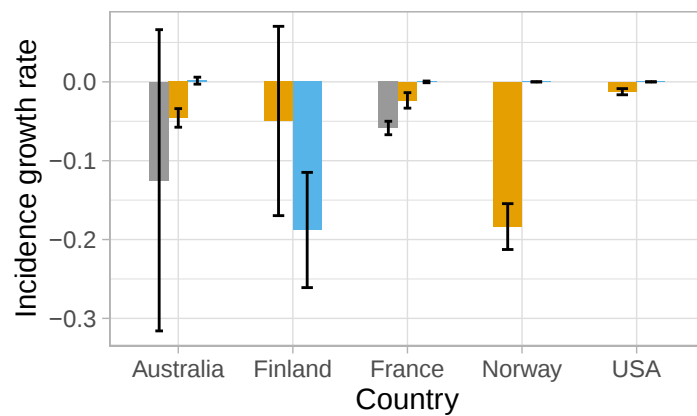
Supplementary Figure 2: National incidence of IPD per 100,000 people in Australia, Finland, France, Norway and USA pre- and post-vaccination with PCV7 and PCV10/13.

Supplementary Figure 3A: Comparison of incidence growth rates of VT in children between countries

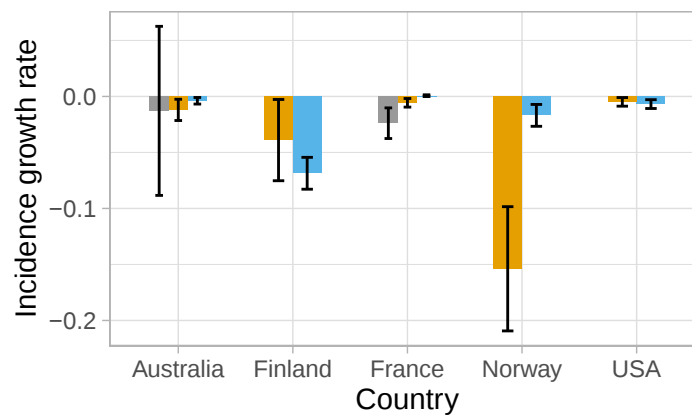
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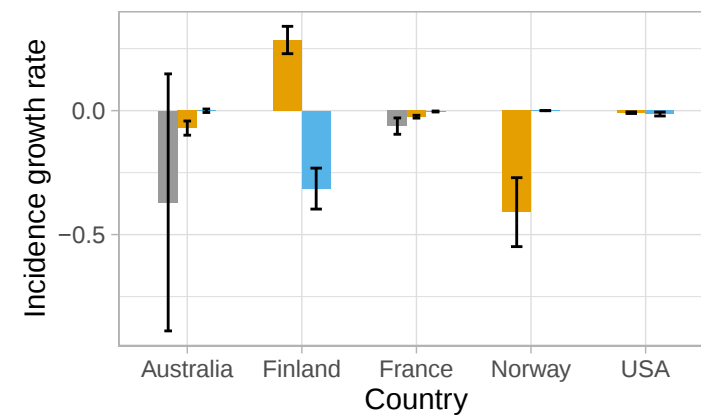
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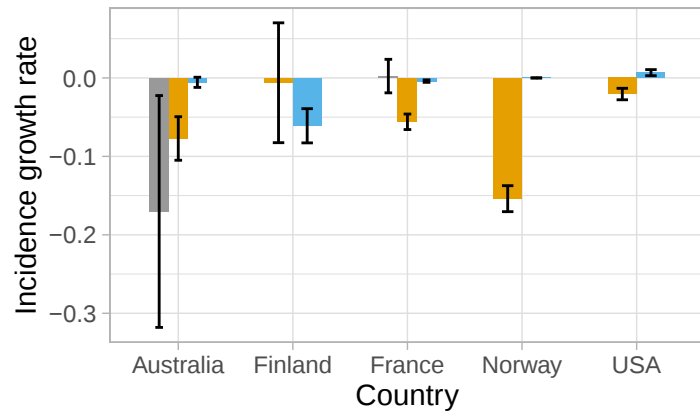
9V



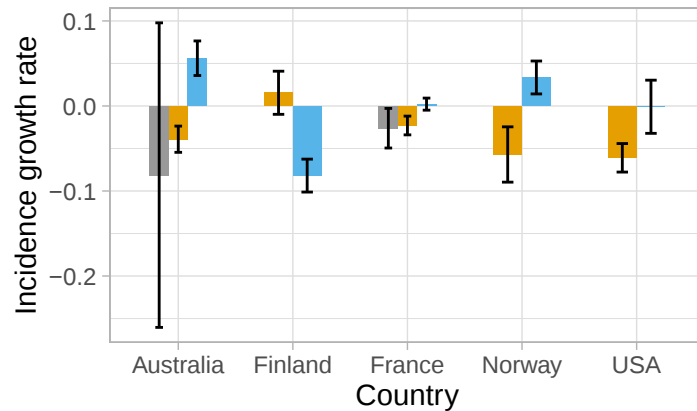
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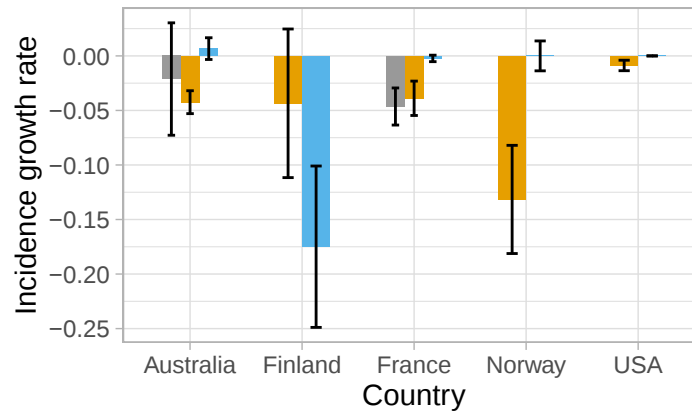
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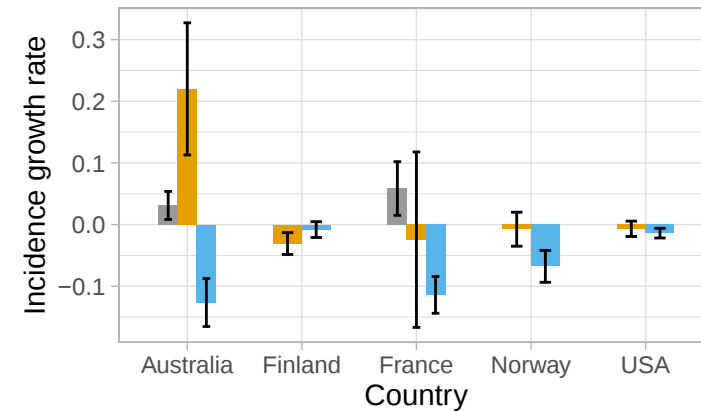
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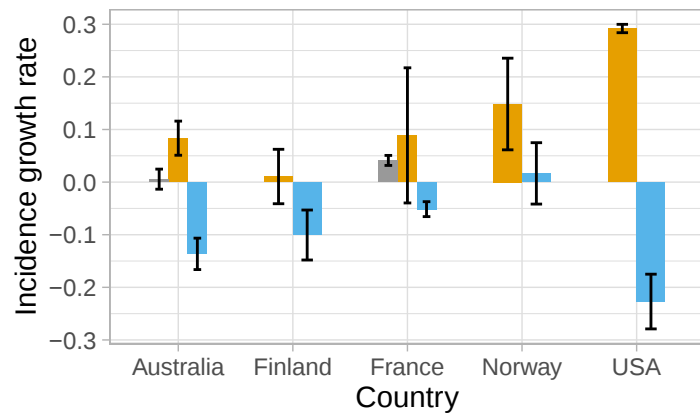
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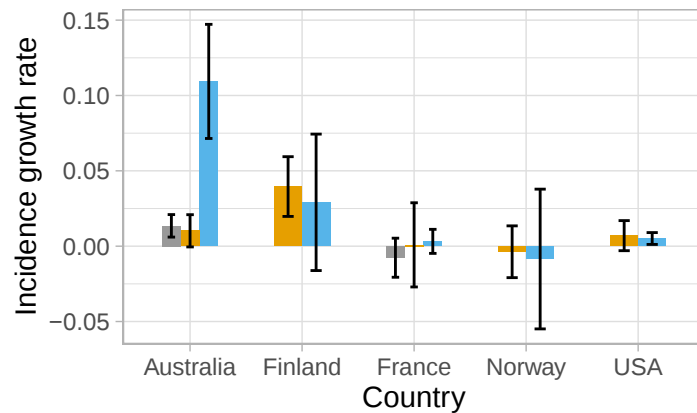
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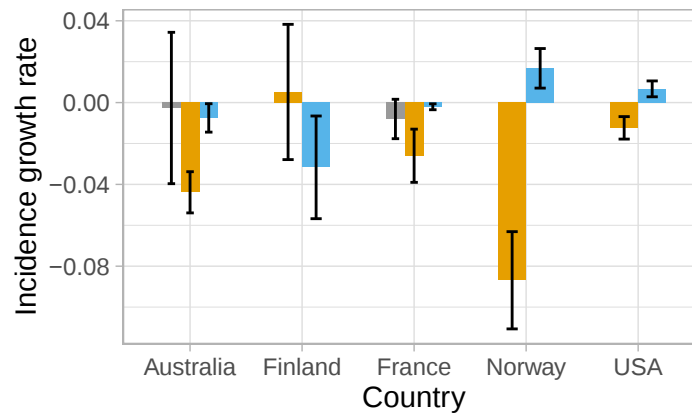
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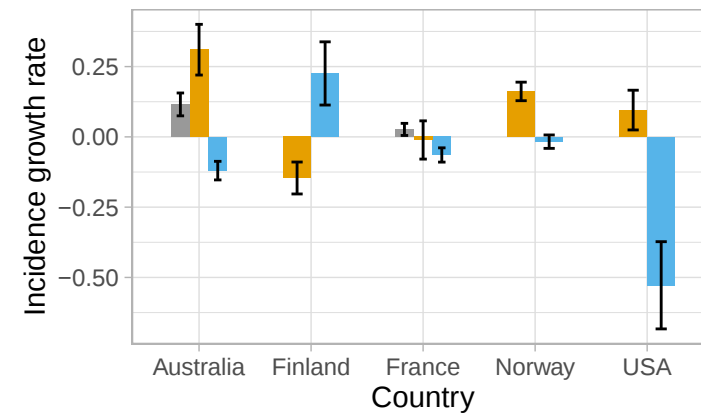
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6A

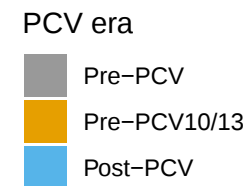
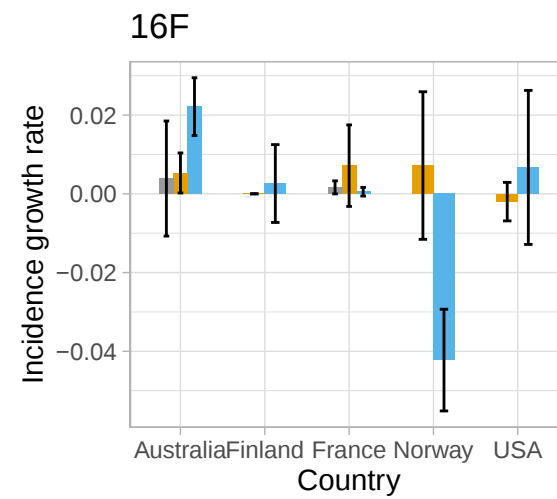
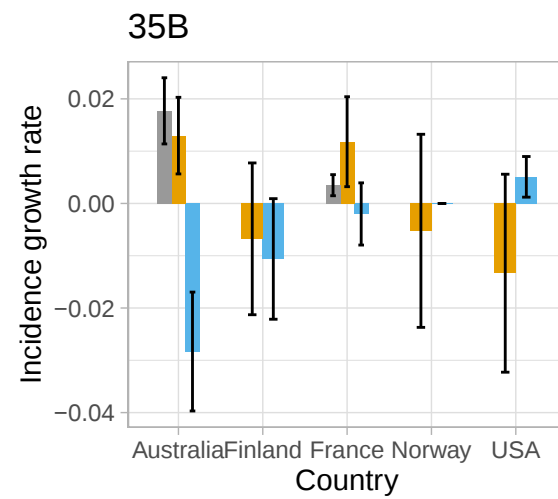
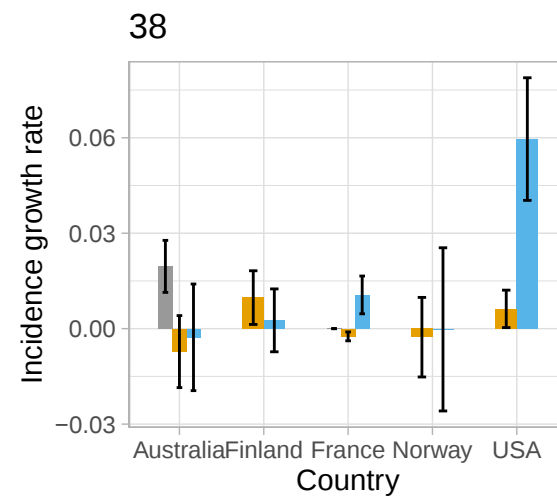
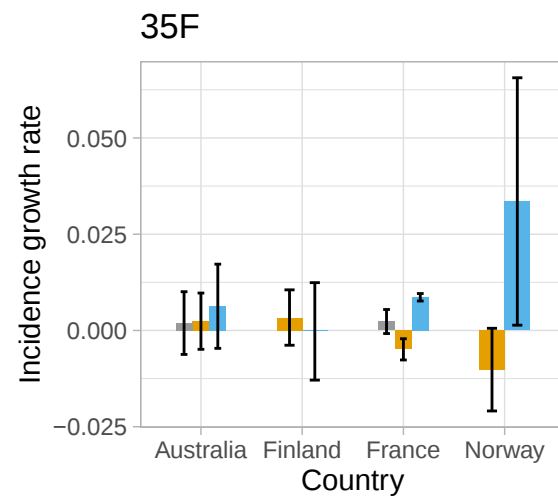
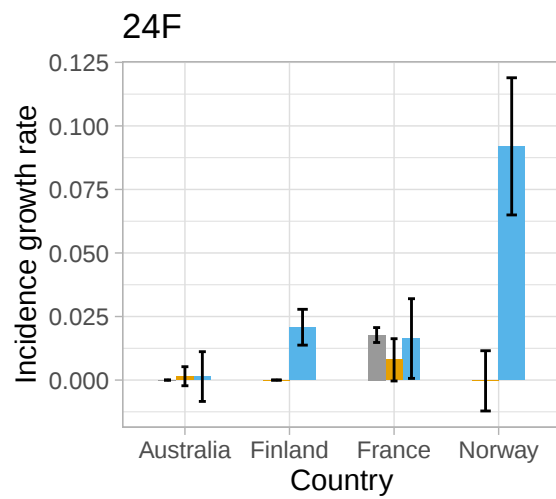
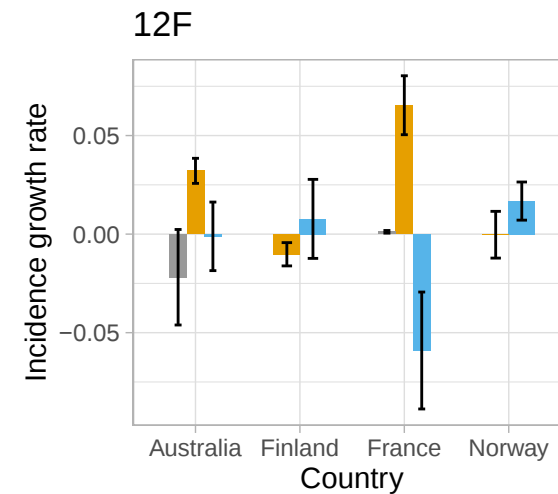
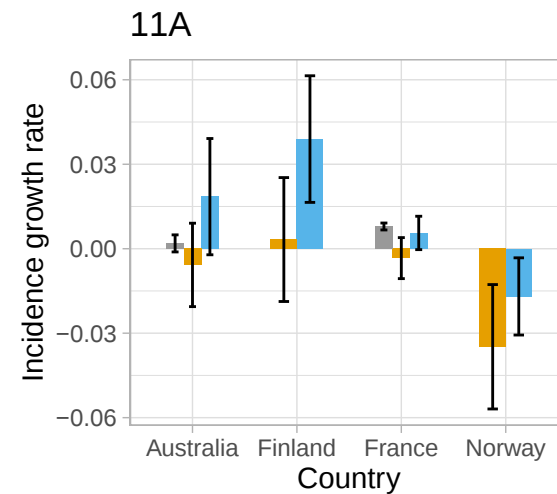
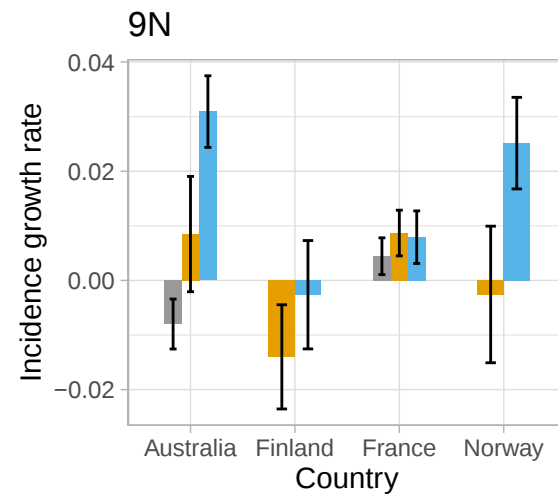
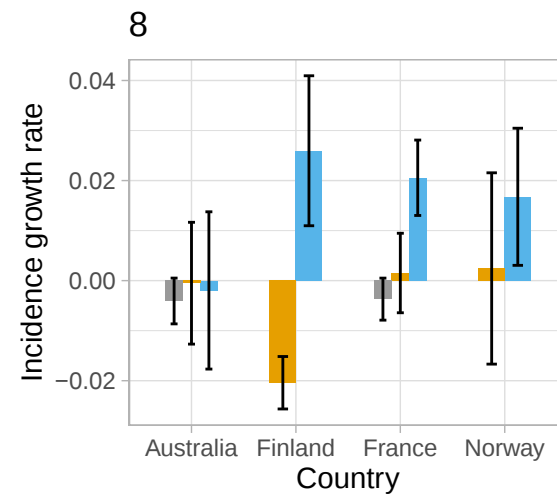
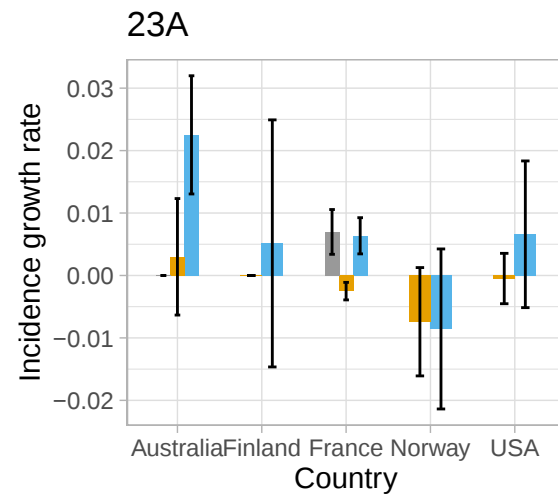
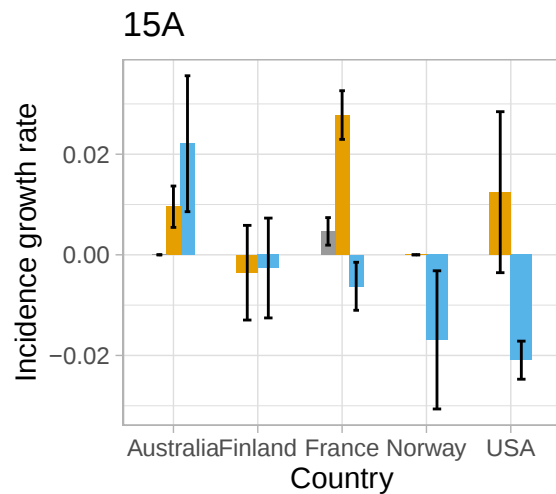
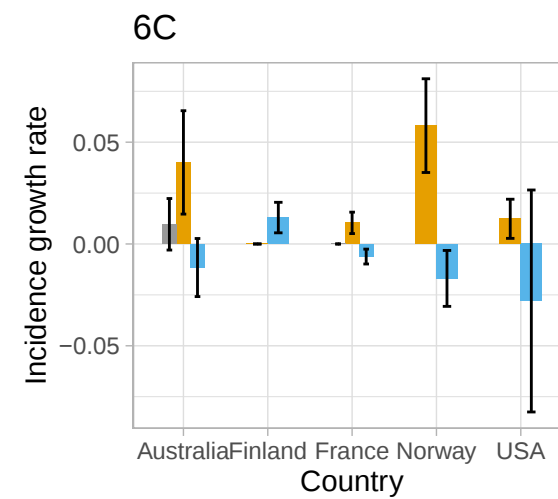
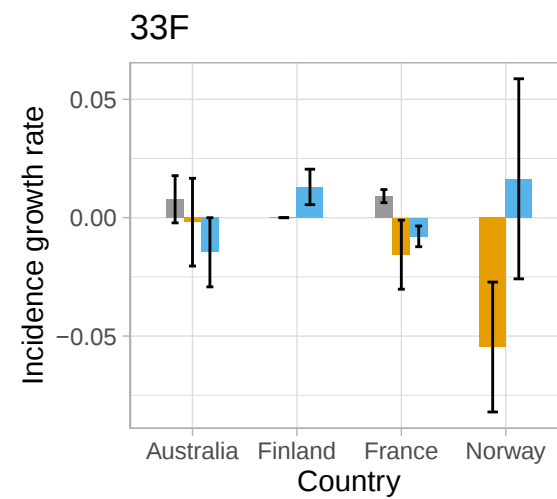
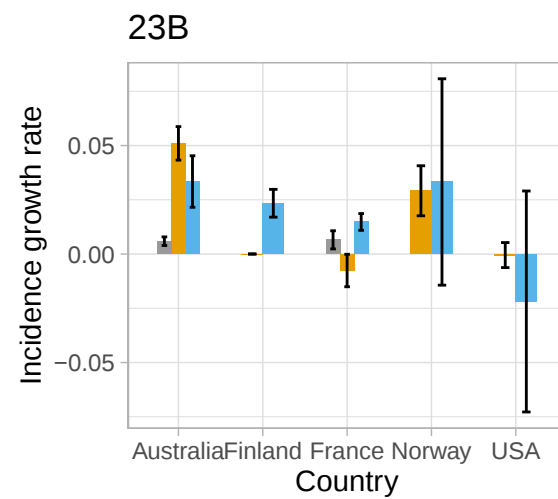
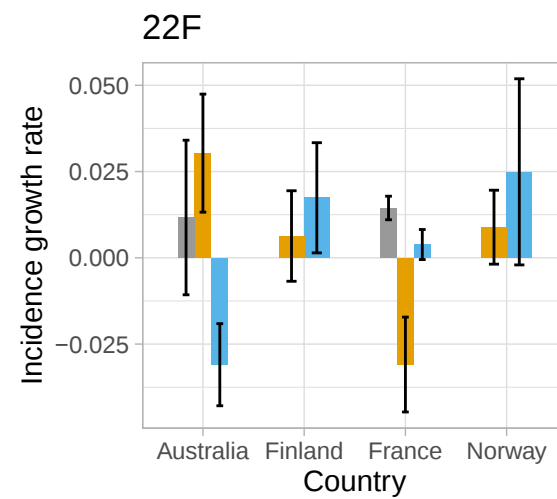
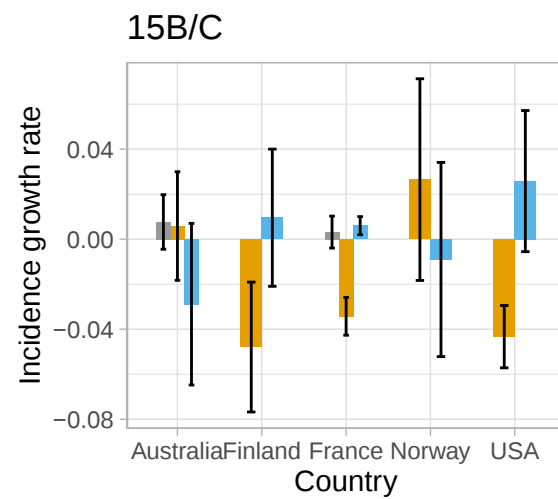
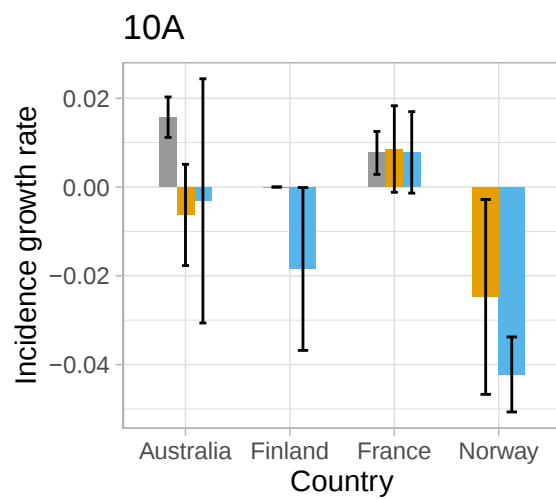


19A

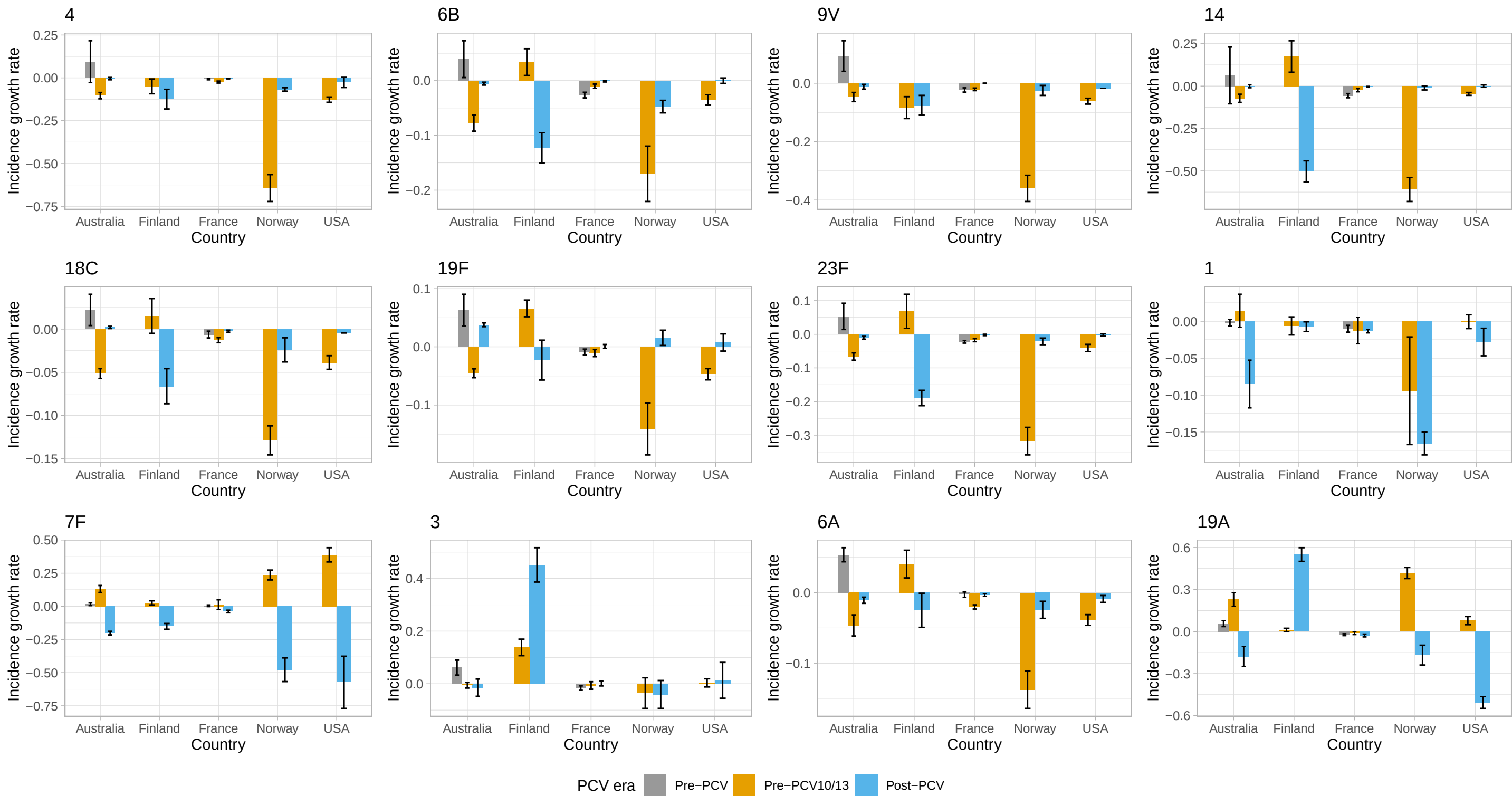


PCV era Pre-PCV Pre-PCV10/13 Post-PCV

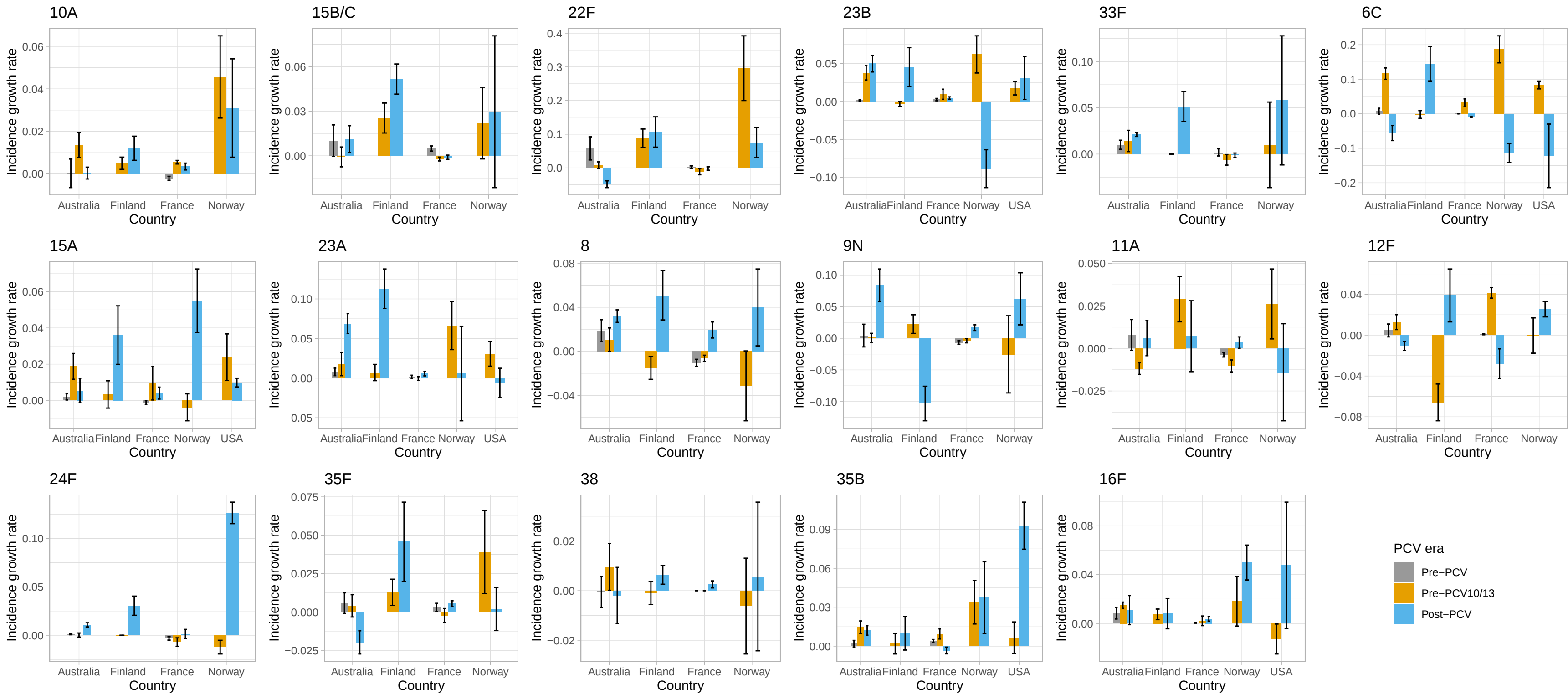
Supplementary Figure 3B: Comparison of incidence growth rates of NVT in children between countries



Supplementary Figure 3C: Comparison of incidence growth rates of VT in adults between countries

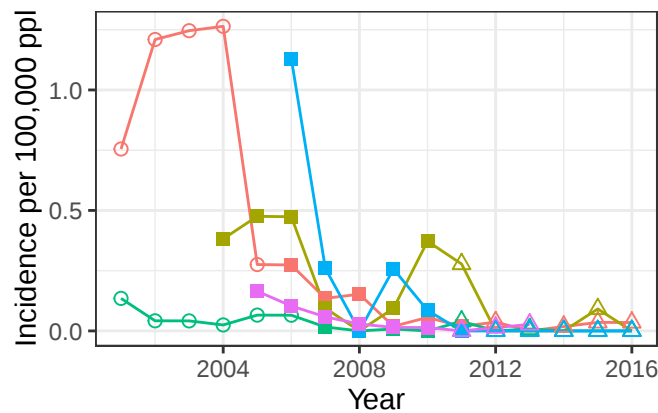


Supplementary Figure 3D: Comparison of incidence growth rates of NVT in adults between countries

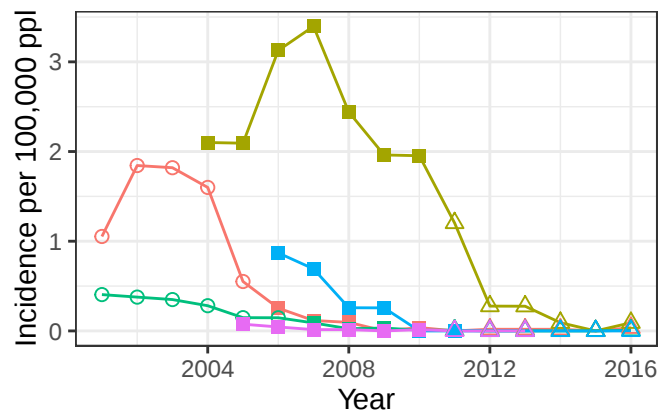


Supplementary Figure 4A: Incidence of VTs in children in different countries

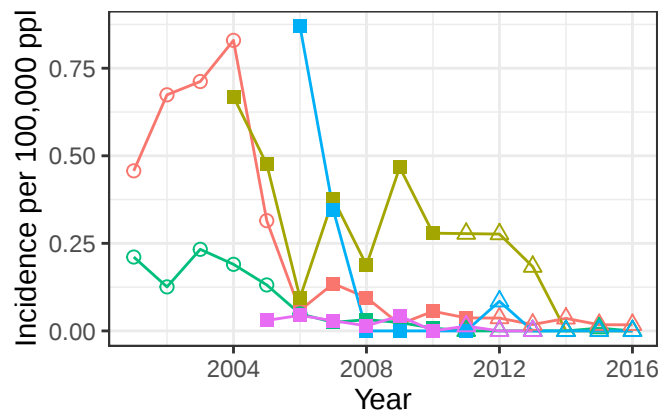
Children: Serotype 4



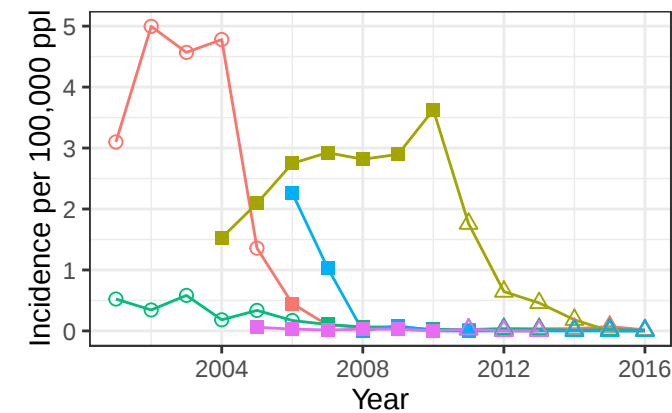
Children: Serotype 6B



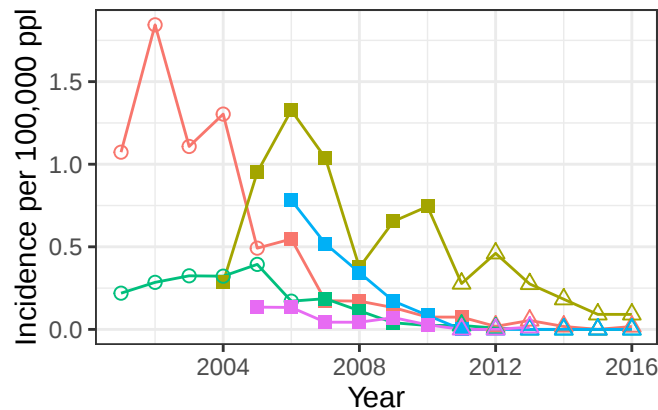
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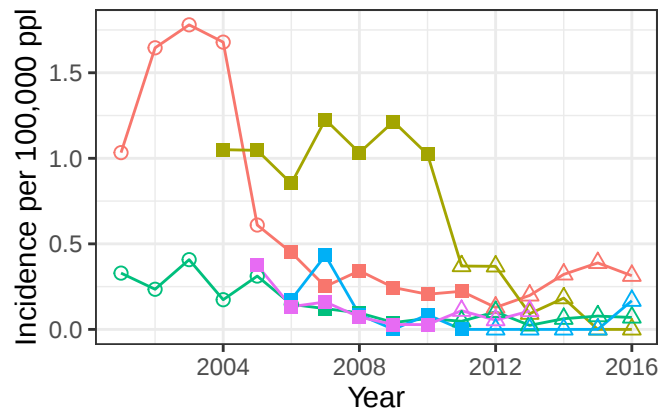
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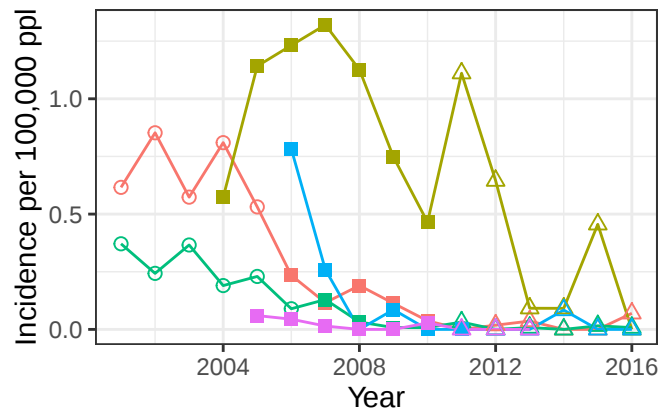
Children: Serotype 18C



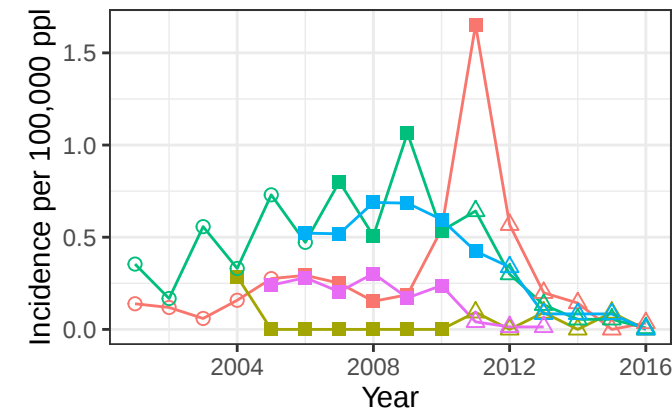
Children: Serotype 19F



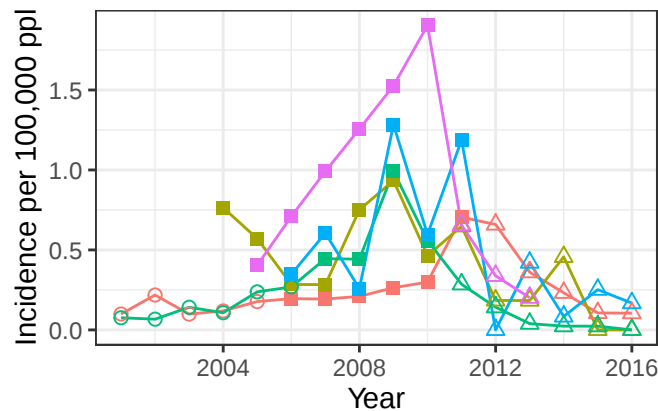
Children: Serotype 23F



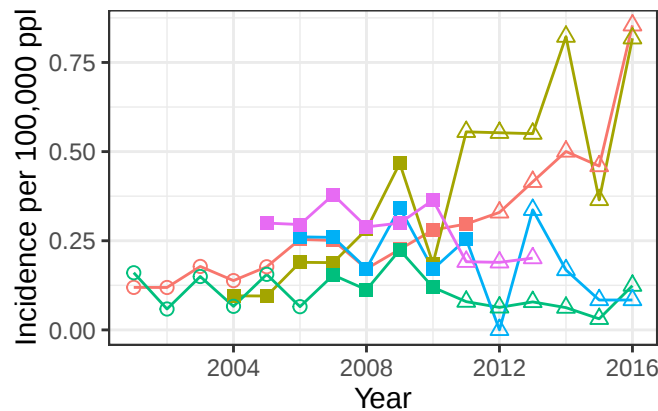
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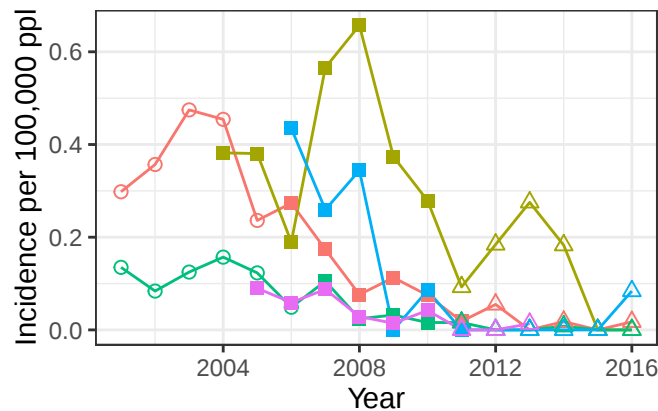
Children: Serotype 7F



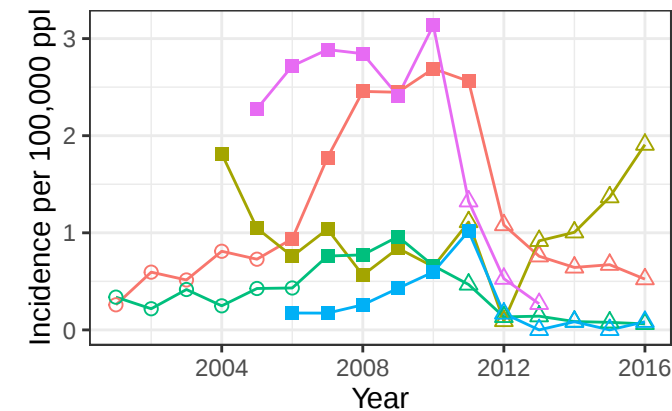
Children: Serotype 3



Children: Serotype 6A

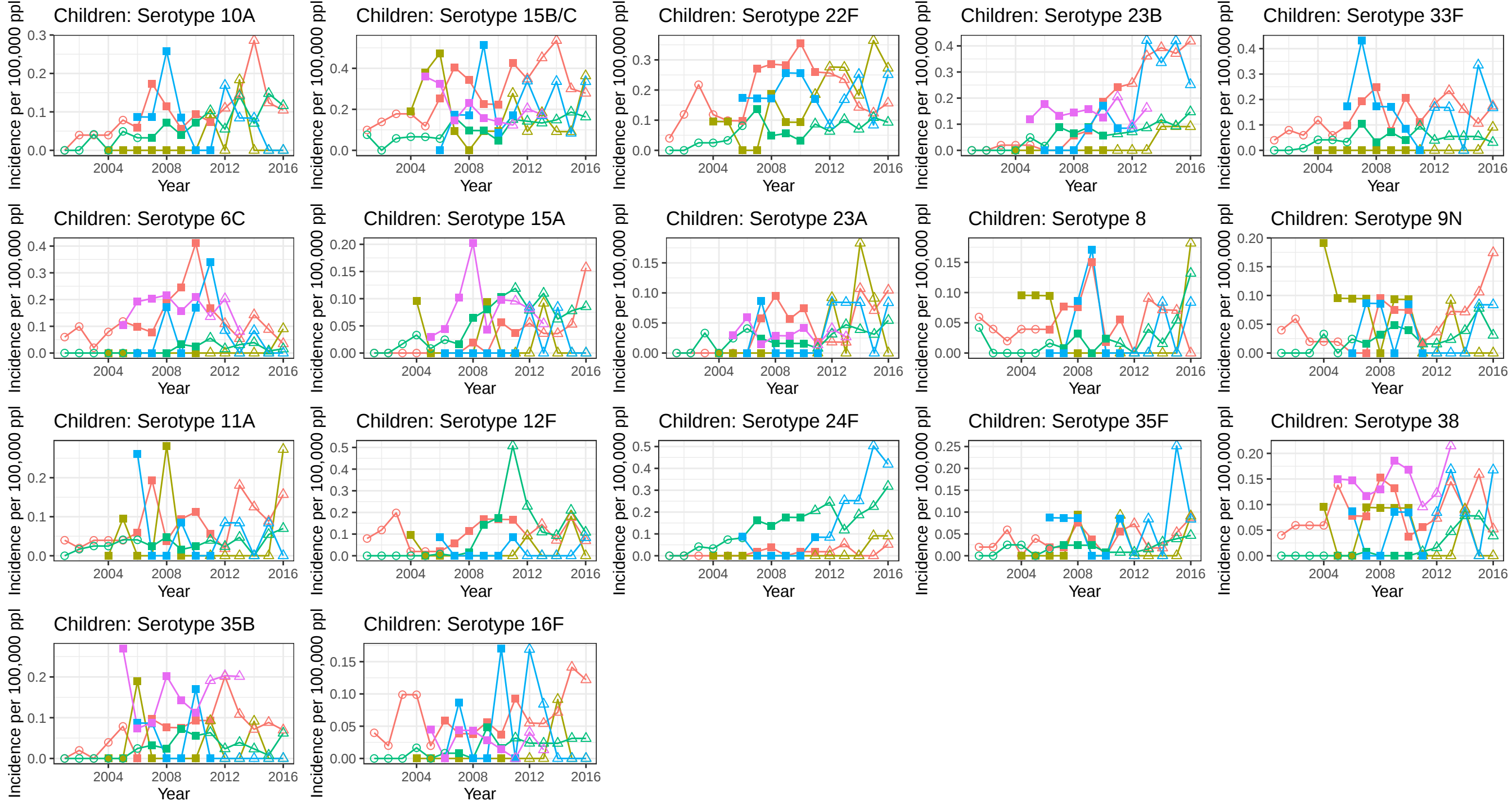


Children: Serotype 19A



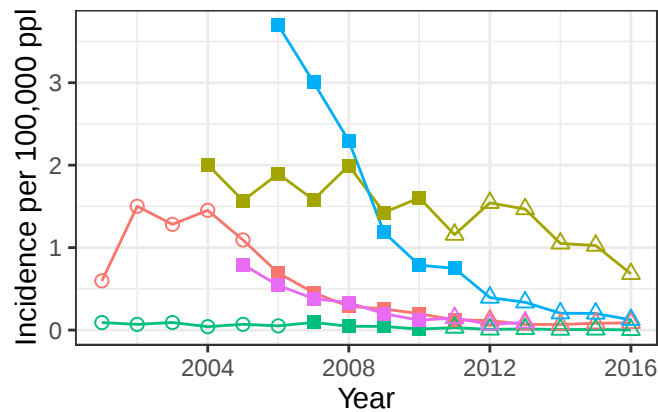
PCV era ○ Pre-PCV ■ Pre-PCV10/13 △ Post-PCV Country —●— Australia —■— Finland —●— France —■— Norway —■— USA

Supplementary Figure 4B: Incidence of NVTs in children in different countries

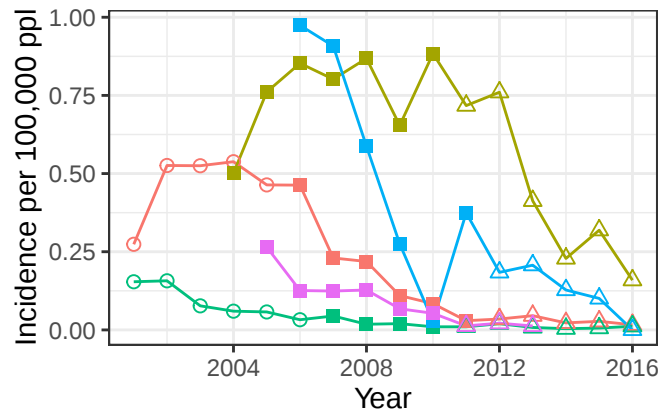


Supplementary Figure 4C: Incidence of VTs in adults in different countries

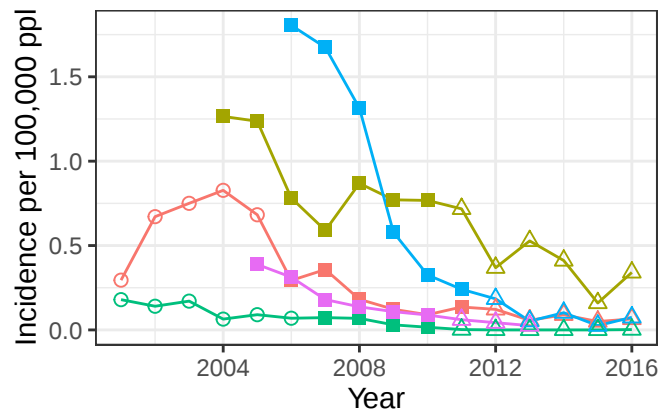
Adults: Serotype 4



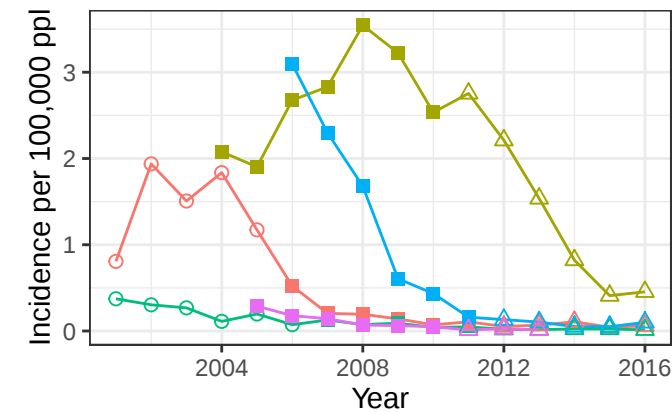
Adults: Serotype 6B



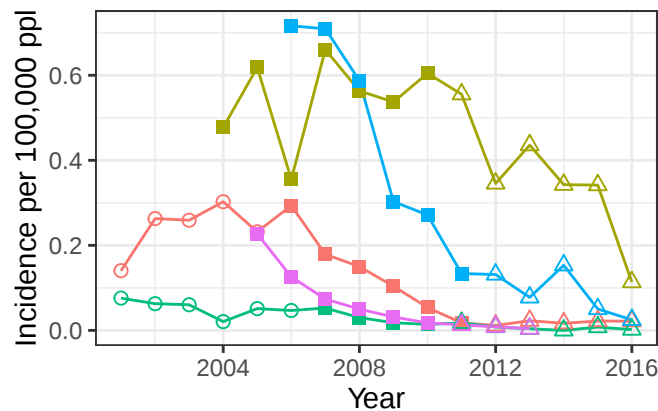
Adults: Serotype 9V



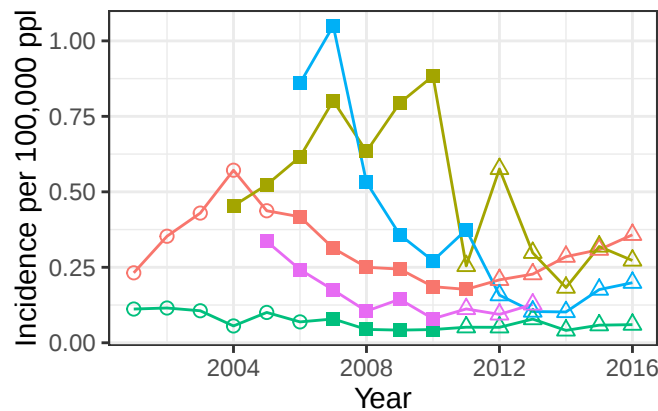
Adults: Serotype 14



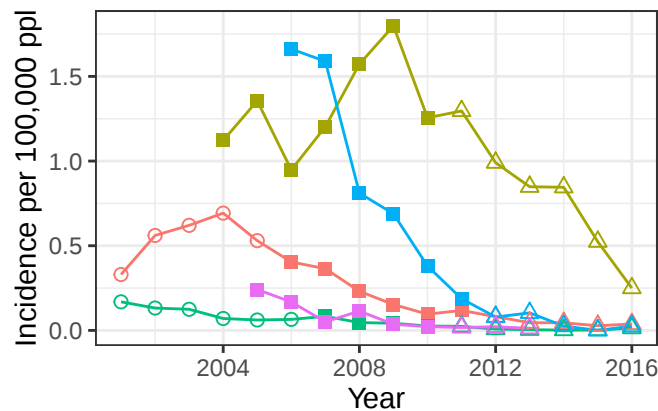
Adults: Serotype 18C



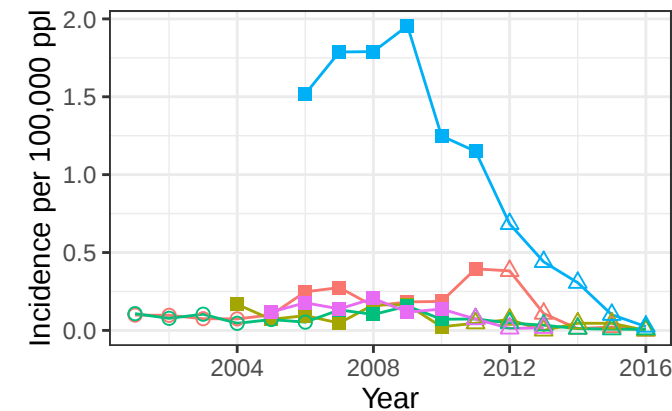
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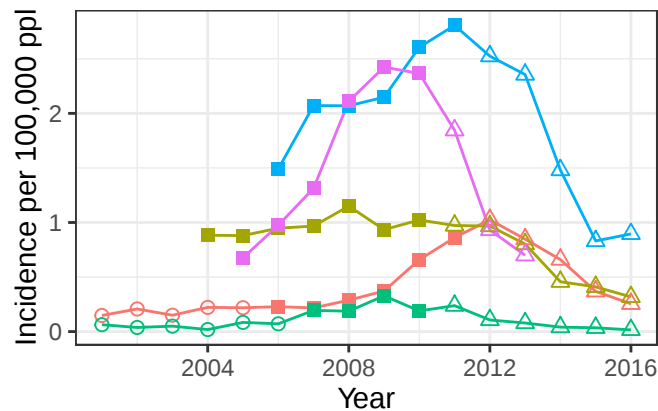
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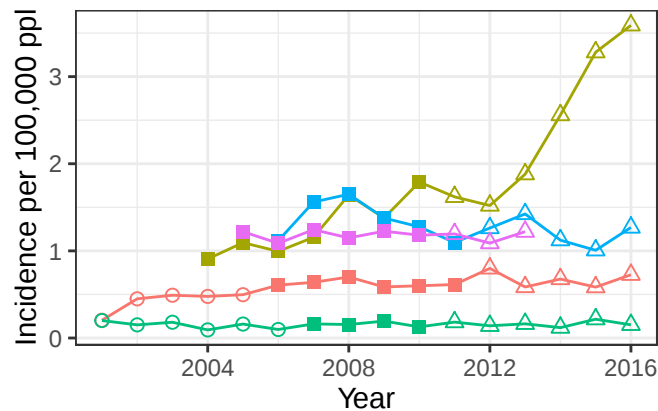
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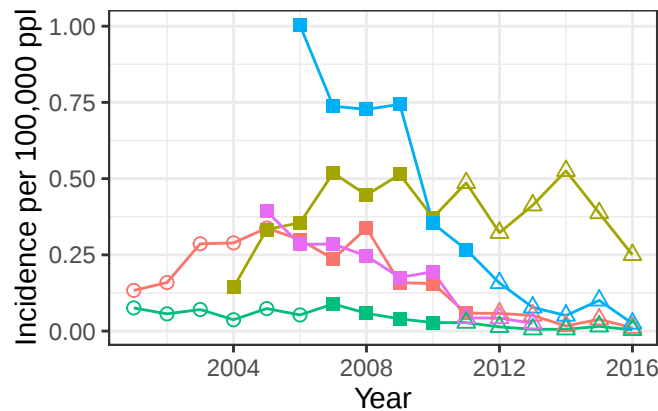
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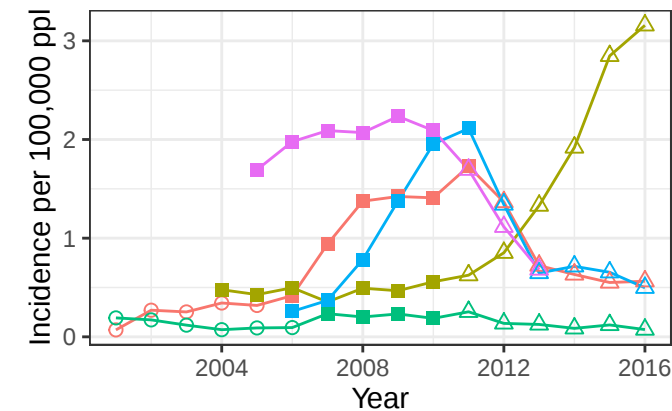
Adults: Serotype 3



Adults: Serotype 6A

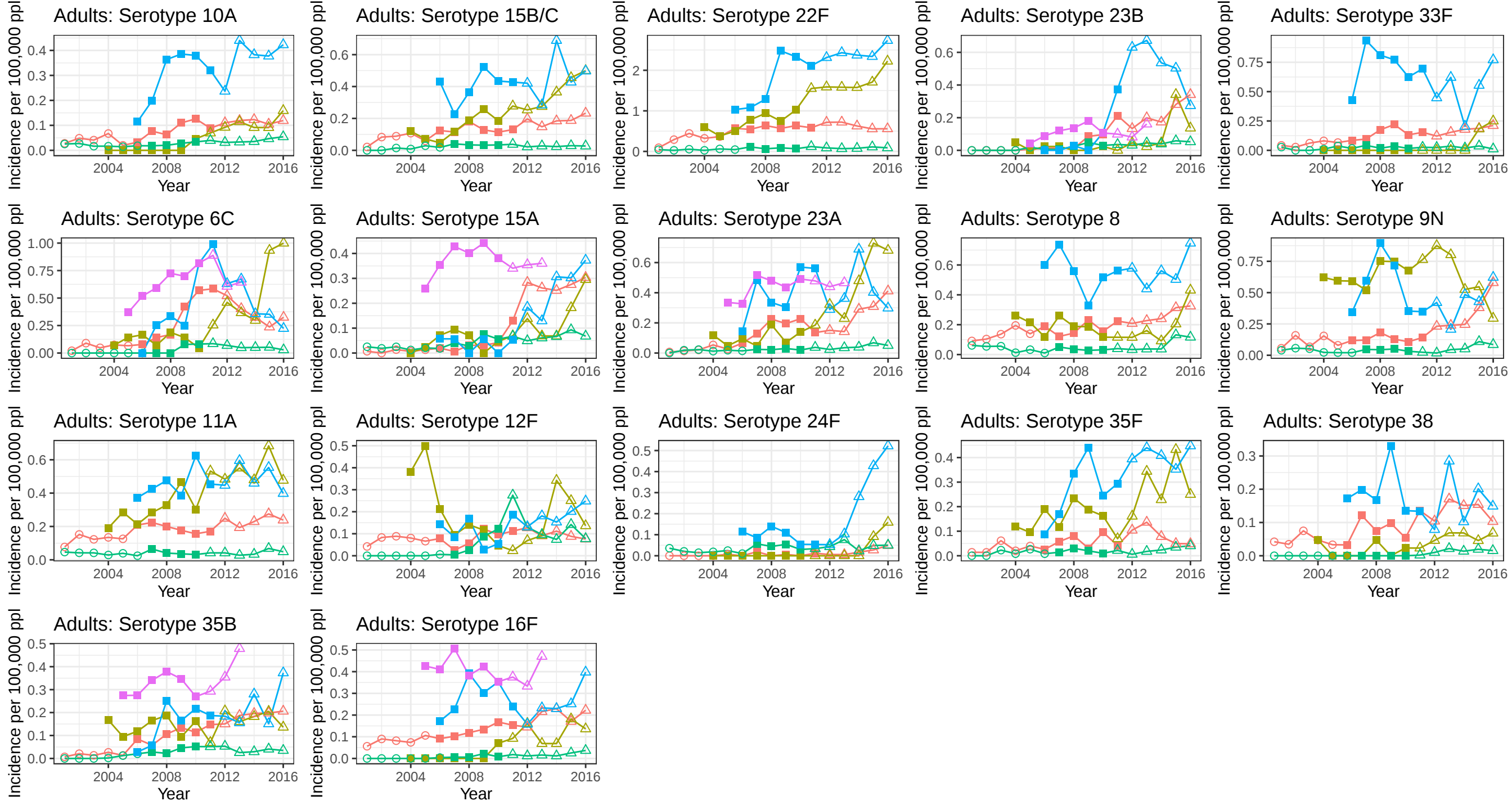


Adults: Serotype 19A



PCV era ○ Pre-PCV ■ Pre-PCV10/13 △ Post-PCV Country — Australia — Finland — France — Norway — USA

Supplementary Figure 4D: Incidence of NVTs in adults in different countries



PCV era ○ Pre-PCV ■ Pre-PCV10/13 △ Post-PCV Country — Australia — Finland — France — Norway — USA