

Supplementary appendices with multivariate sensitivity analyses

Part 2: Net benefit box plots

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Appendix G

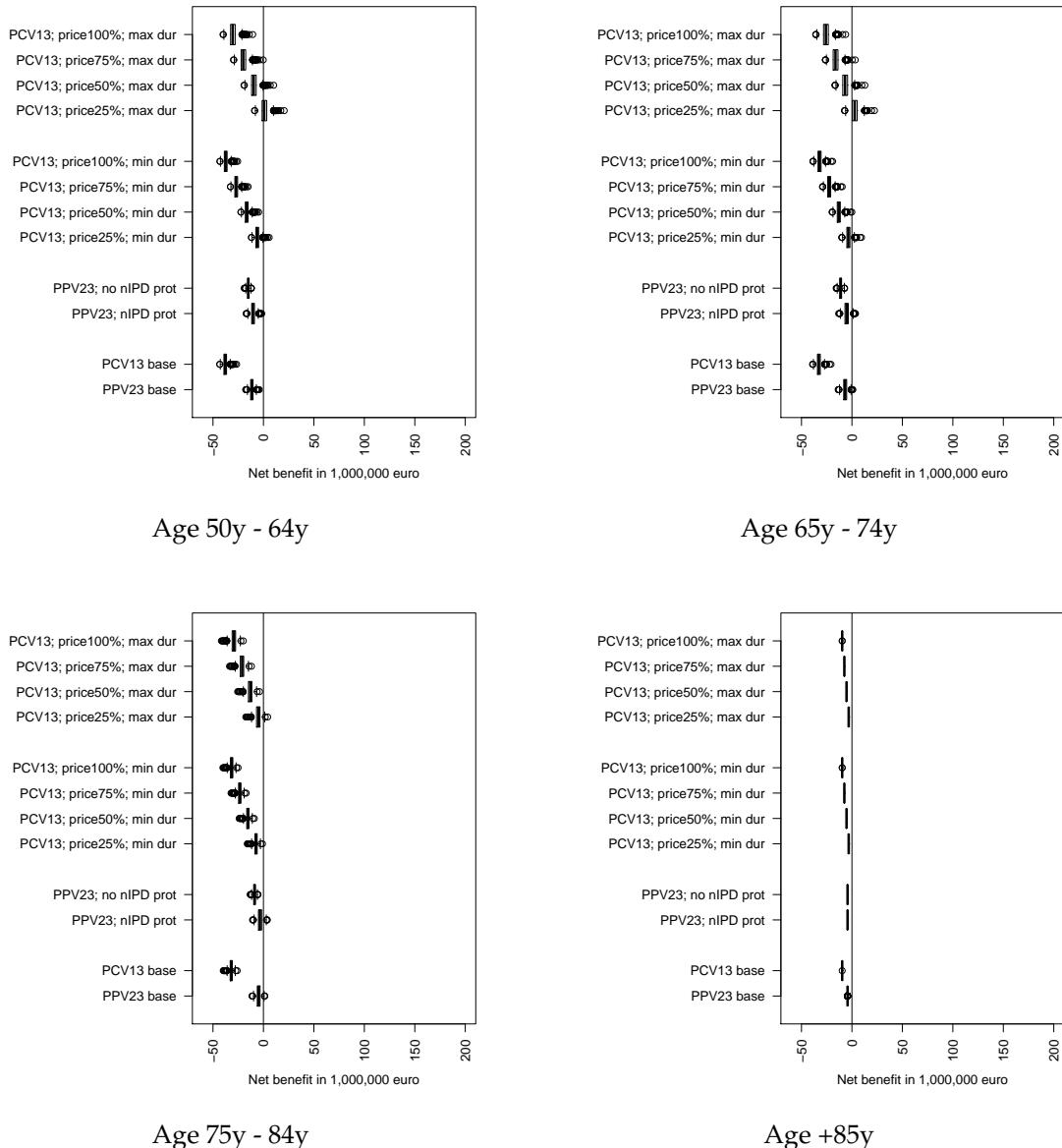
Multivariate sensitivity analysis: Net benefits presented in box plots for three levels of willingness to pay per QALY

In this supplementary file we illustrate multivariate sensitivity of the results, by showing box plots of the net benefits at three different willingness to pay levels (€3,500, €70,000 and €105,000 per QALY gained). When the net benefits are positive (>0 in the graphs) for a given willingness to pay value, that means that it is cost-saving versus the current situation at that particular willingness to pay level. The parametric uncertainty remains fully reflected by the position of the box plot versus 0 in each scenario considered. For ease of reference we also show the box plot of the baseline scenario and we show direct comparisons in these plots between PCV13 and PPV23 versus the current situation only. When a given box plot is with its average or completely more to the right than another one (say if PPV23 base is more to the right than PCV13 base) then that means the strategy and scenario it represents is on average or completely more beneficial (i.e. PPV23 base is on average more beneficial than PCV13).

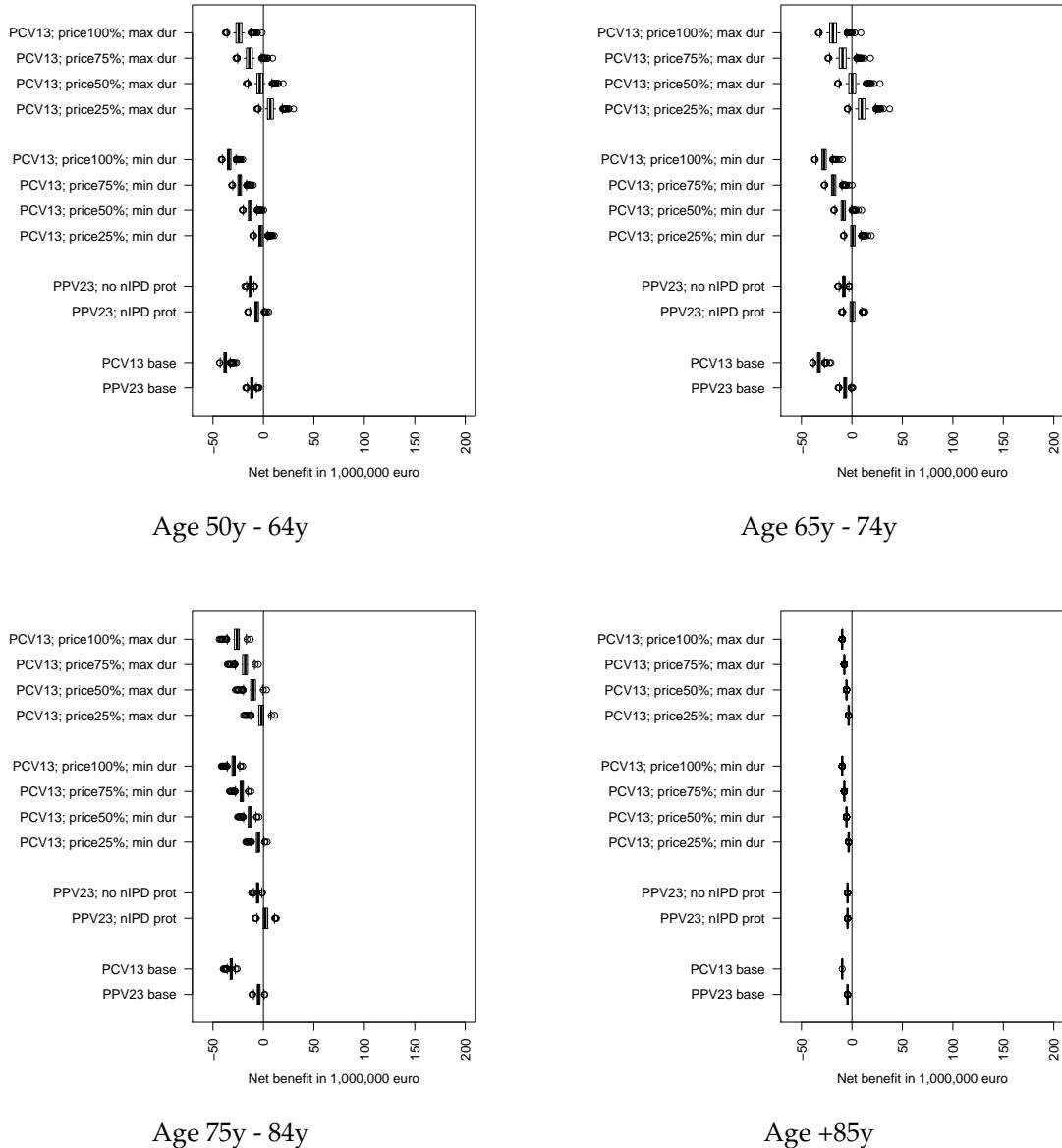
Part I

**Net benefit multivariate sensitivity analysis
using a willingness to pay of 35,000 euro per
QALY gained**

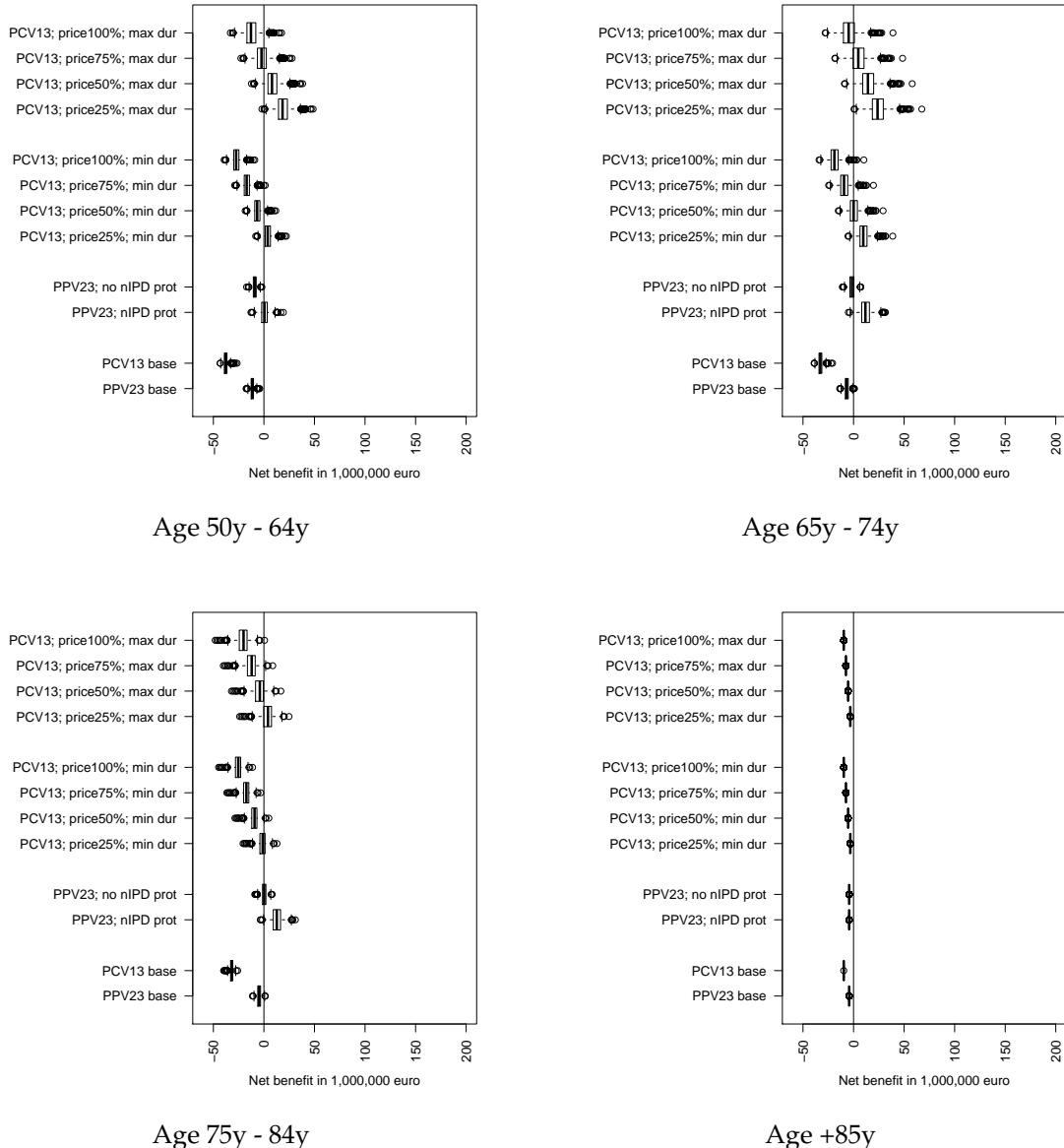
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND Willingness to pay 35,000 euro per QALY gained



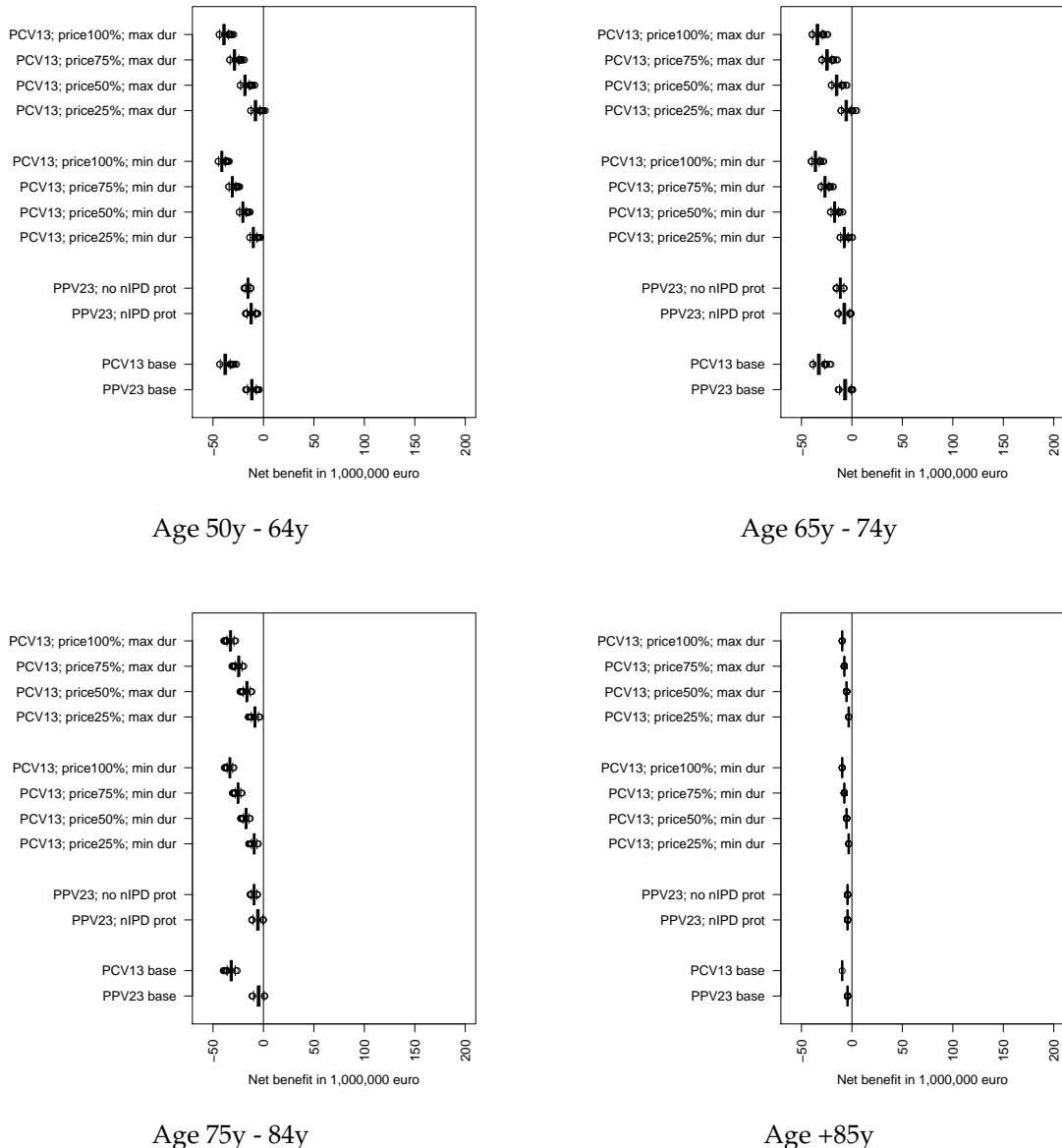
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND High hospitalised pneumococcal pneumonia incidence: 1.5x baseline AND Willingness to pay 35,000 euro per QALY gained



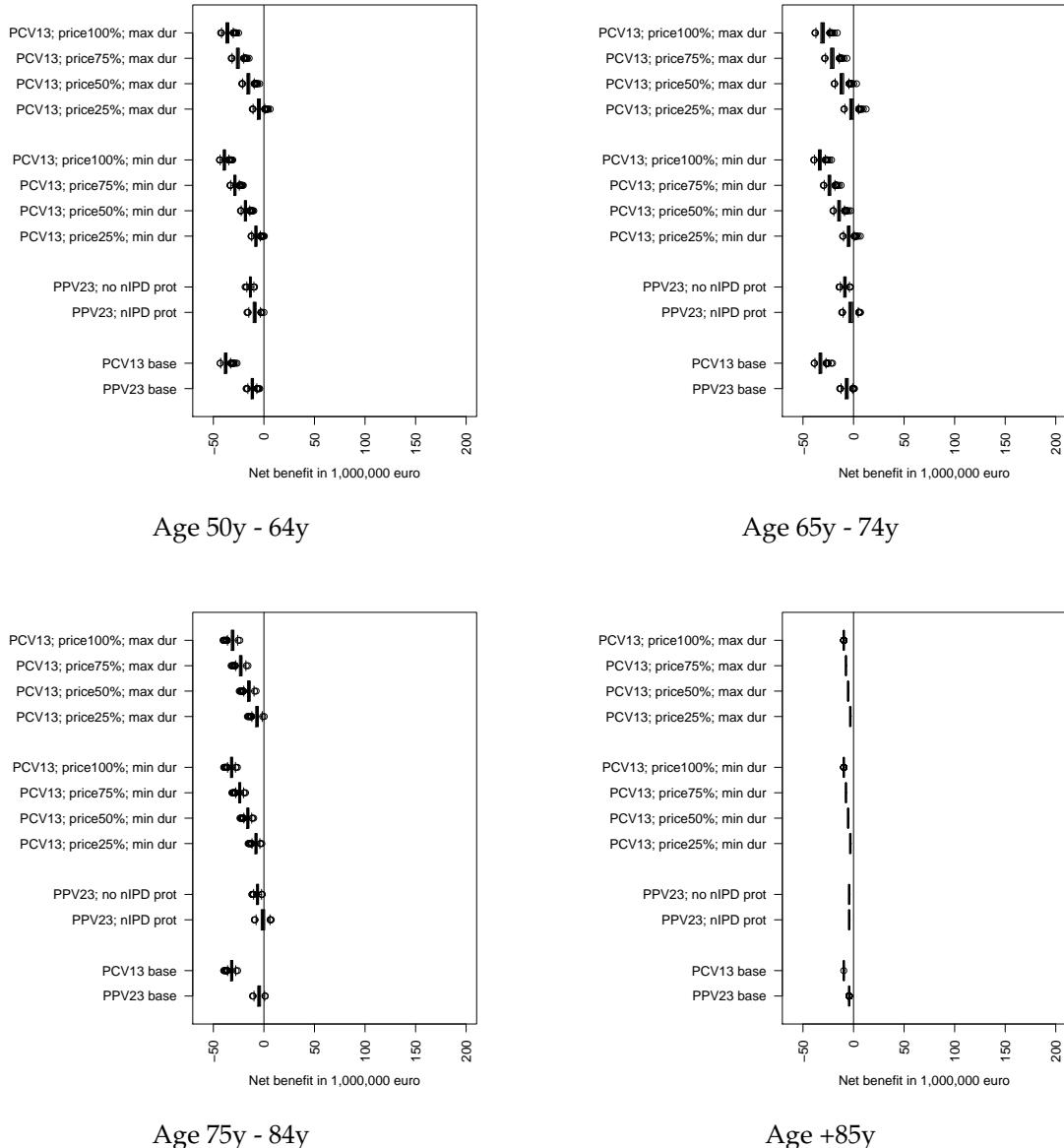
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND High hospitalised pneumococcal pneumonia incidence: 2.5x baseline AND Willingness to pay 35,000 euro per QALY gained



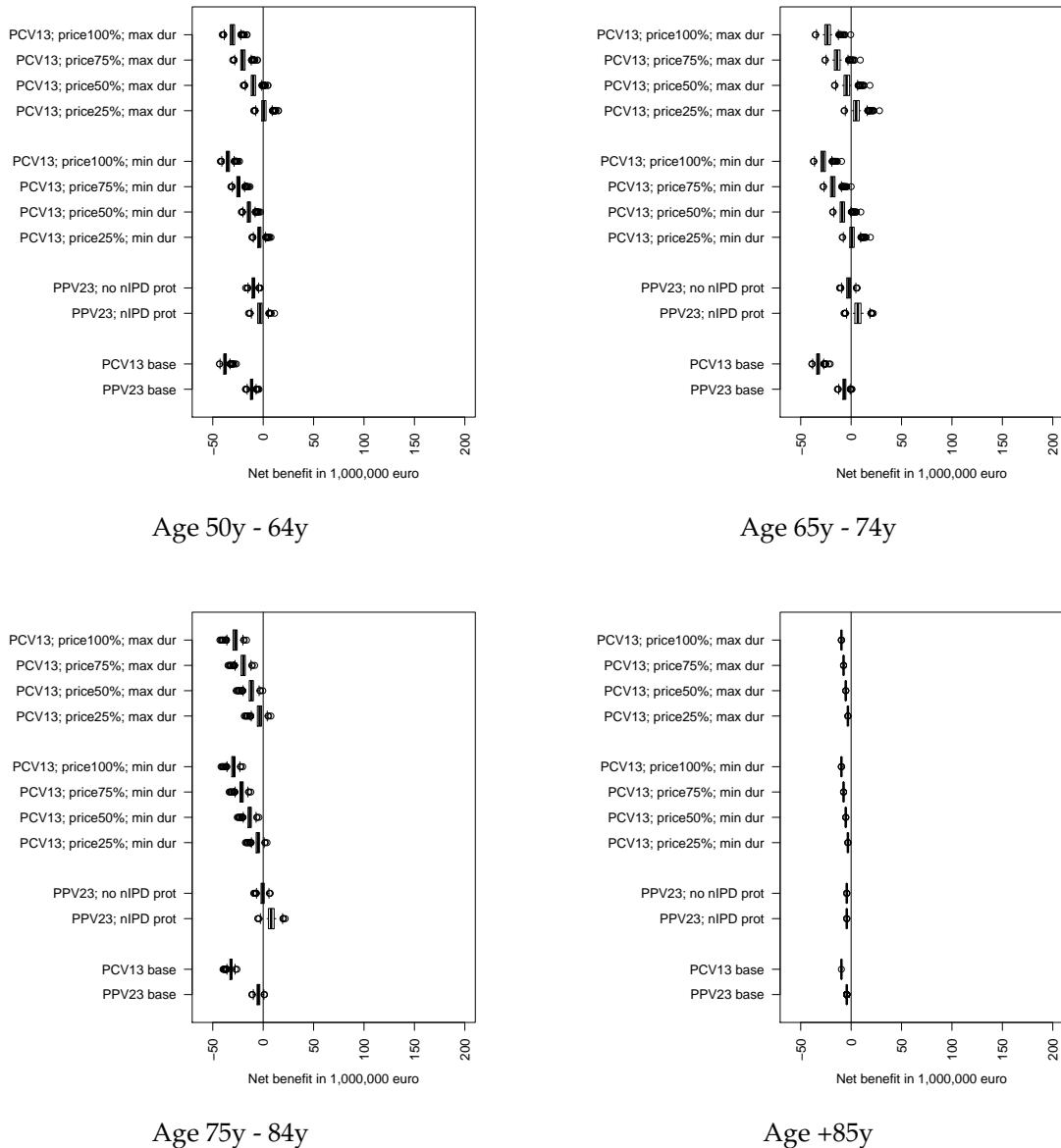
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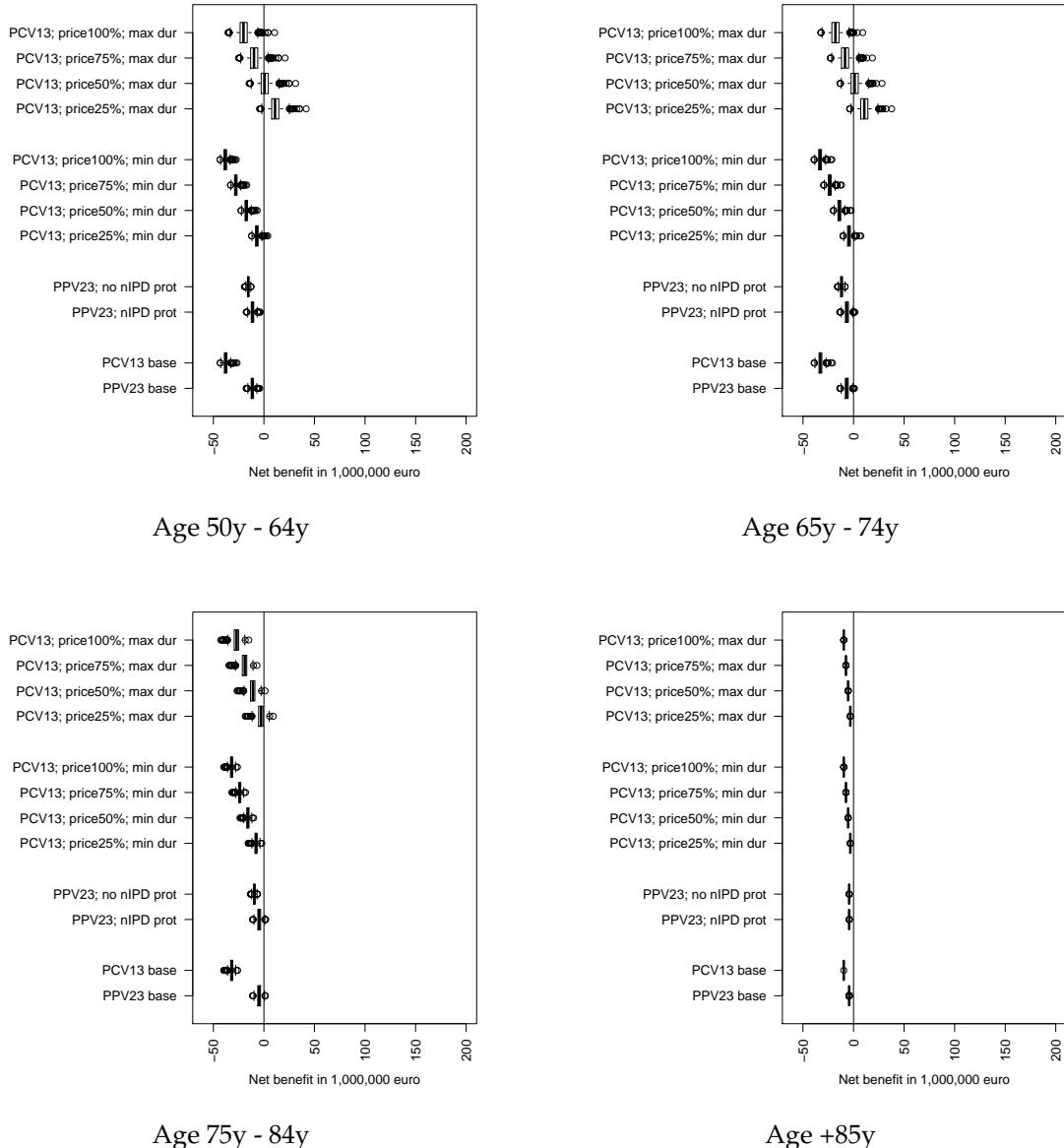
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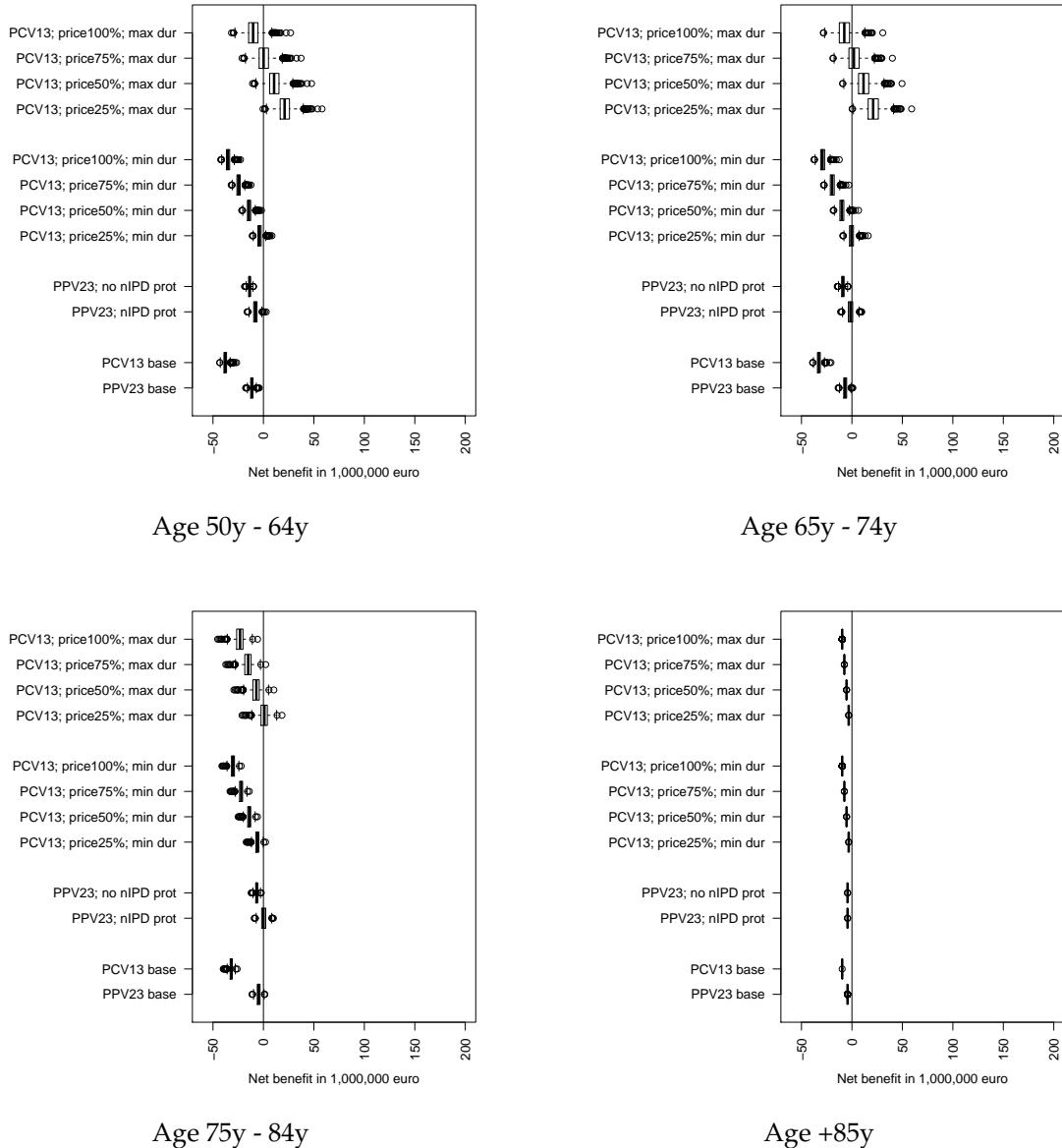
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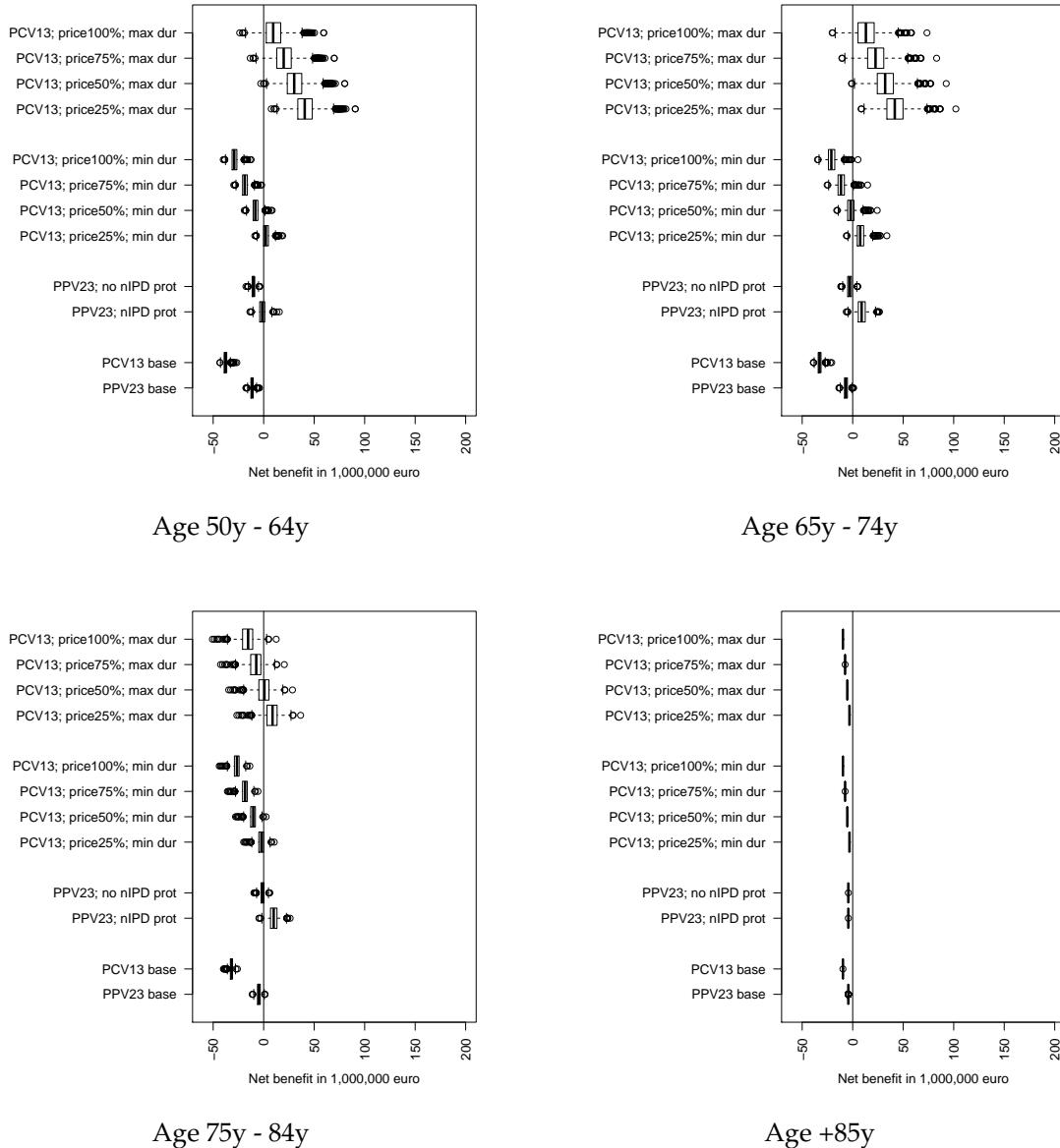
**Slow PCV13 serotype relapse: PCV13 incidence returns to 2015 value within 15 years
AND Willingness to pay 35,000 euro per QALY gained**



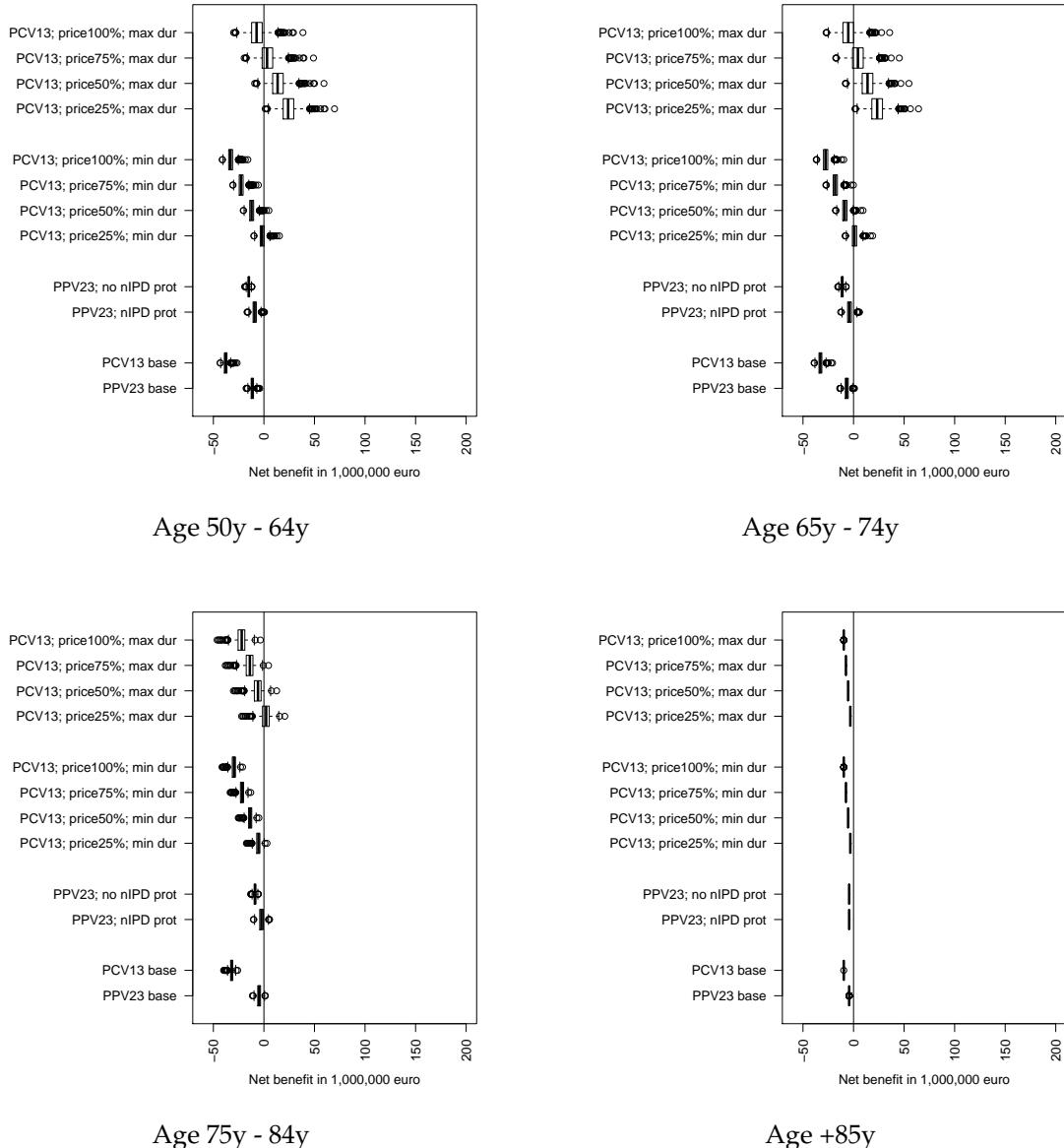
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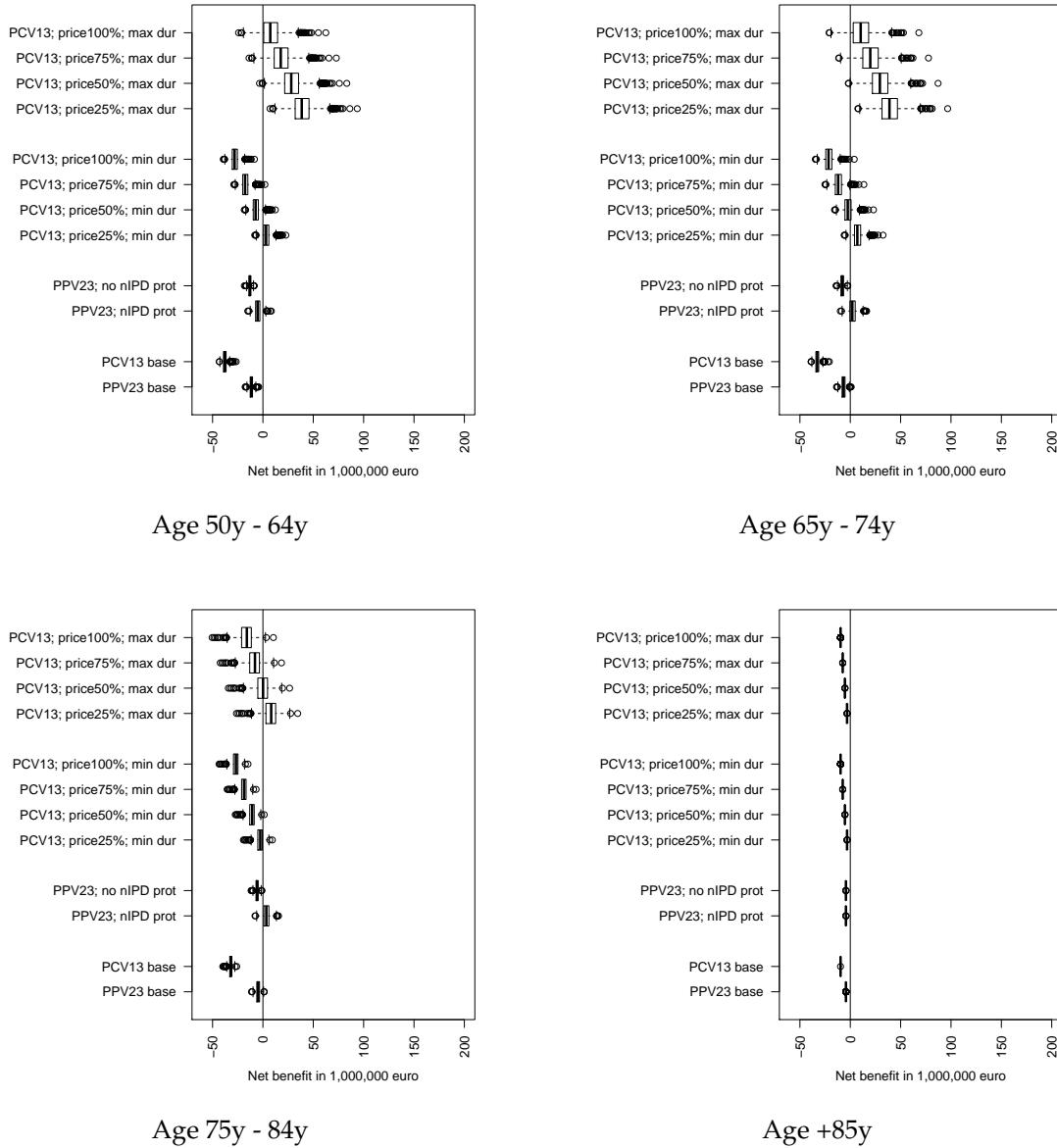
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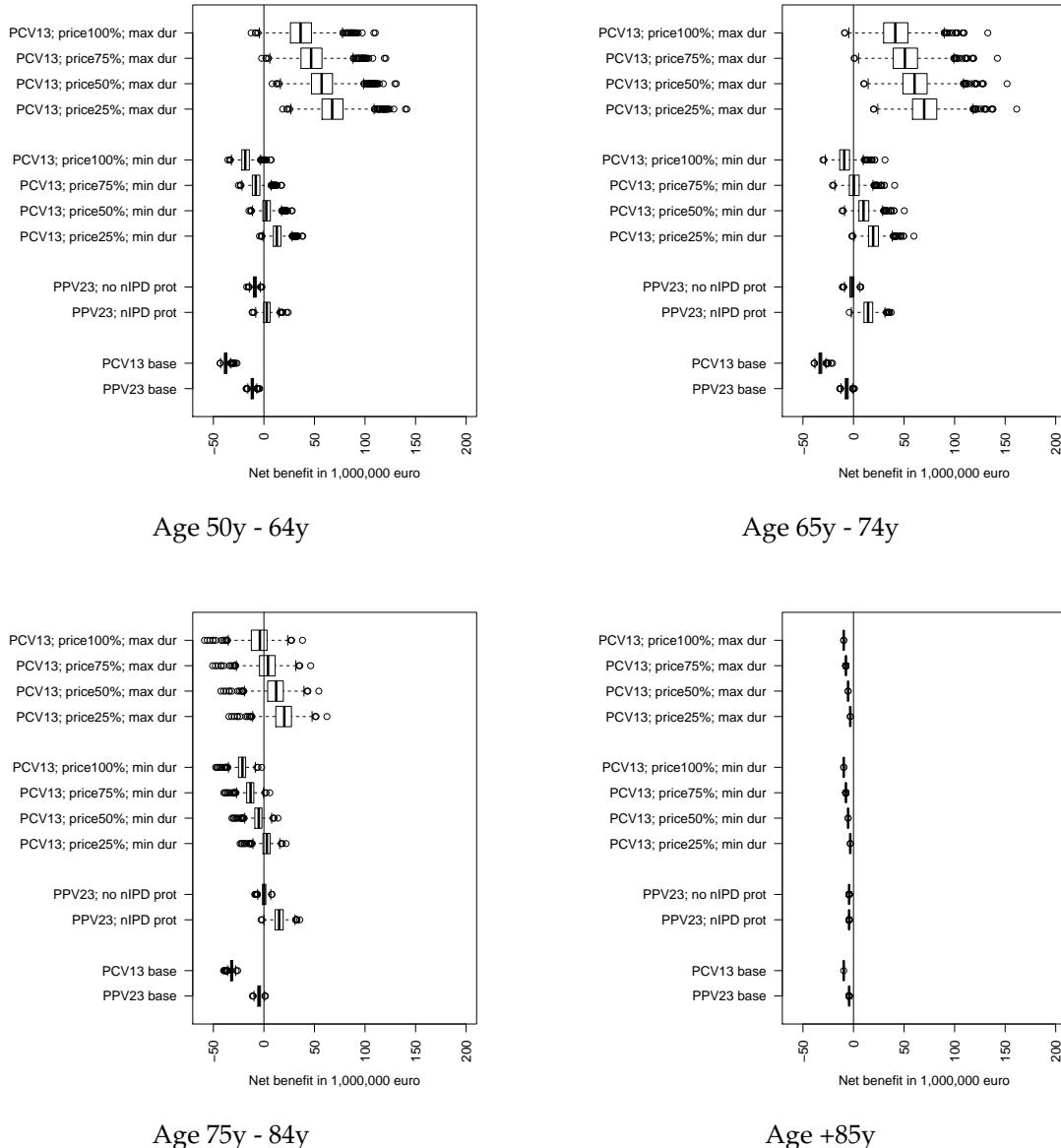
**Quick PCV13 serotype relapse: PCV13 incidence returns to 2015 value within 7 years
AND Willingness to pay 35,000 euro per QALY gained**



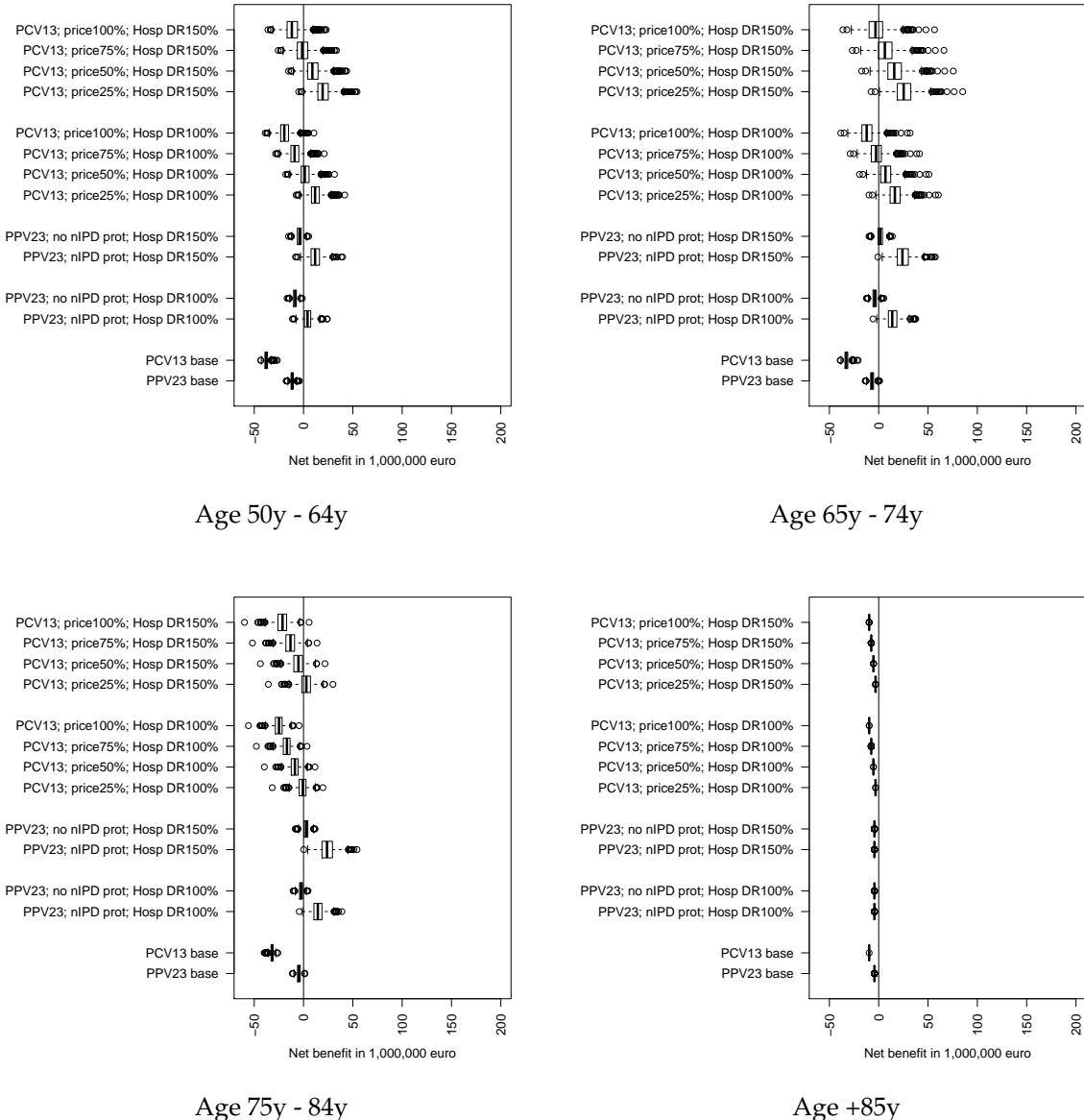
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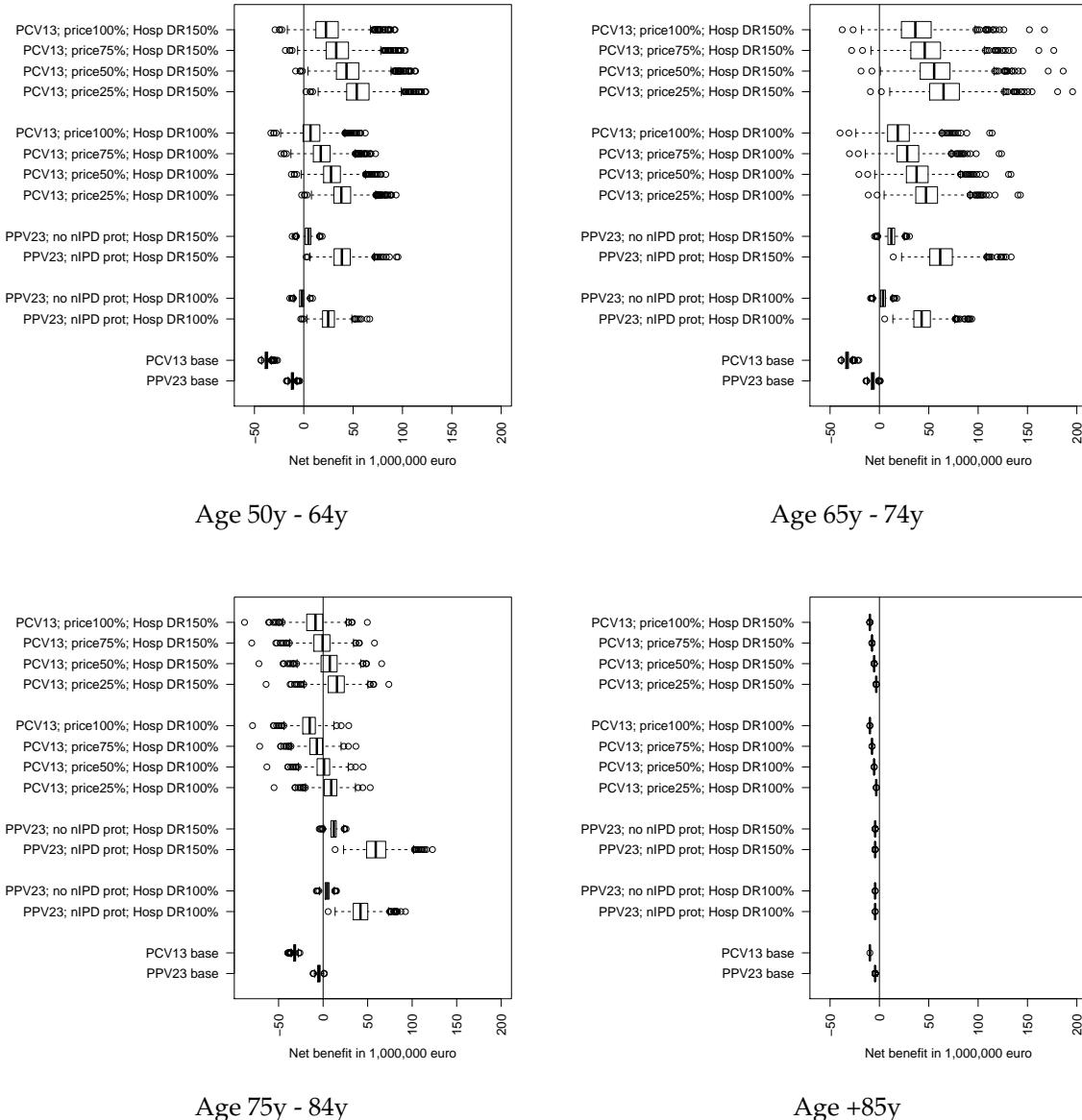
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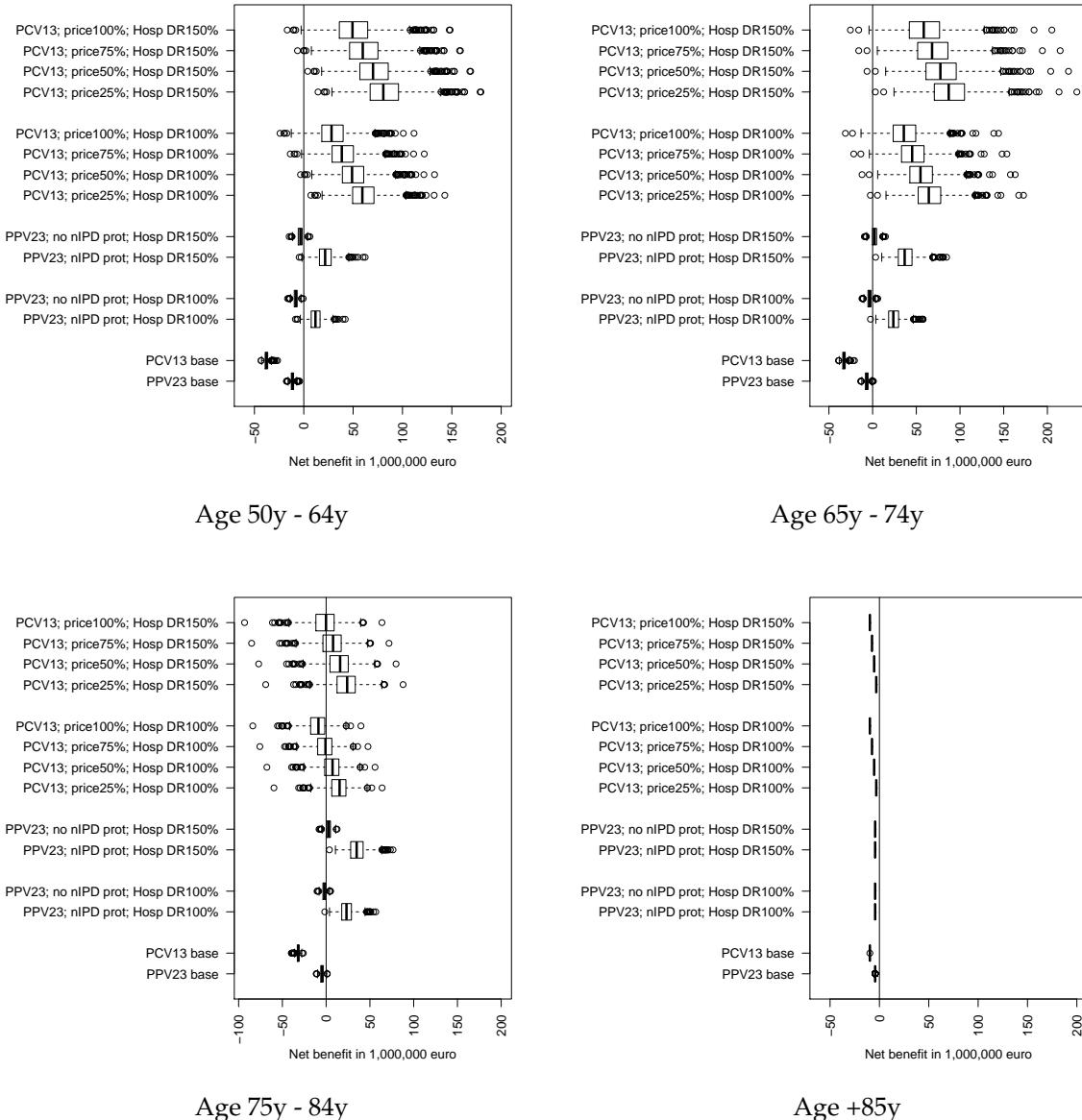
**HIGHER BURDEN: Using QALY loss of the medium risk group AND All incidences
200% of baseline AND Willingness to pay 35,000 euro per QALY gained**



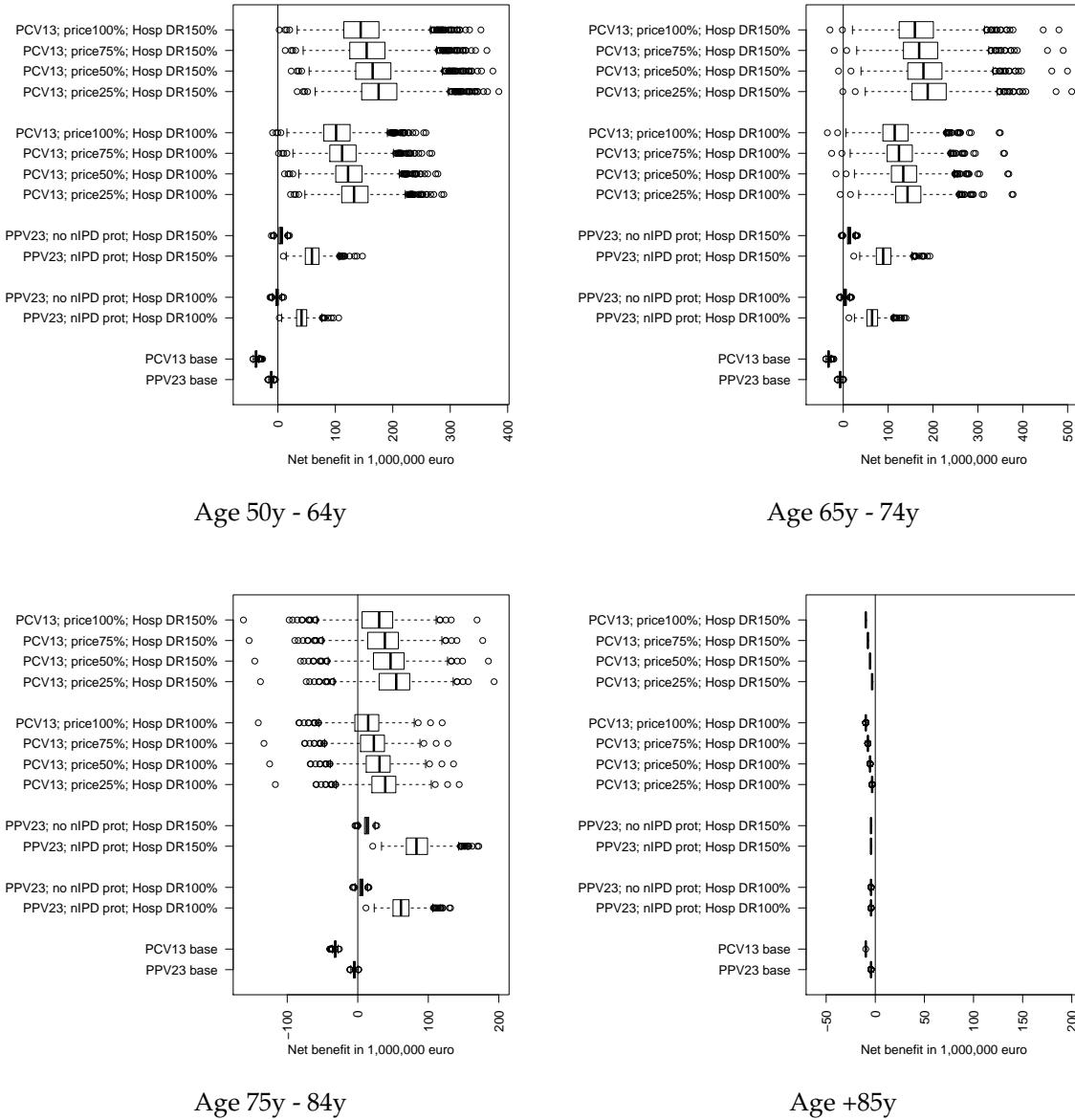
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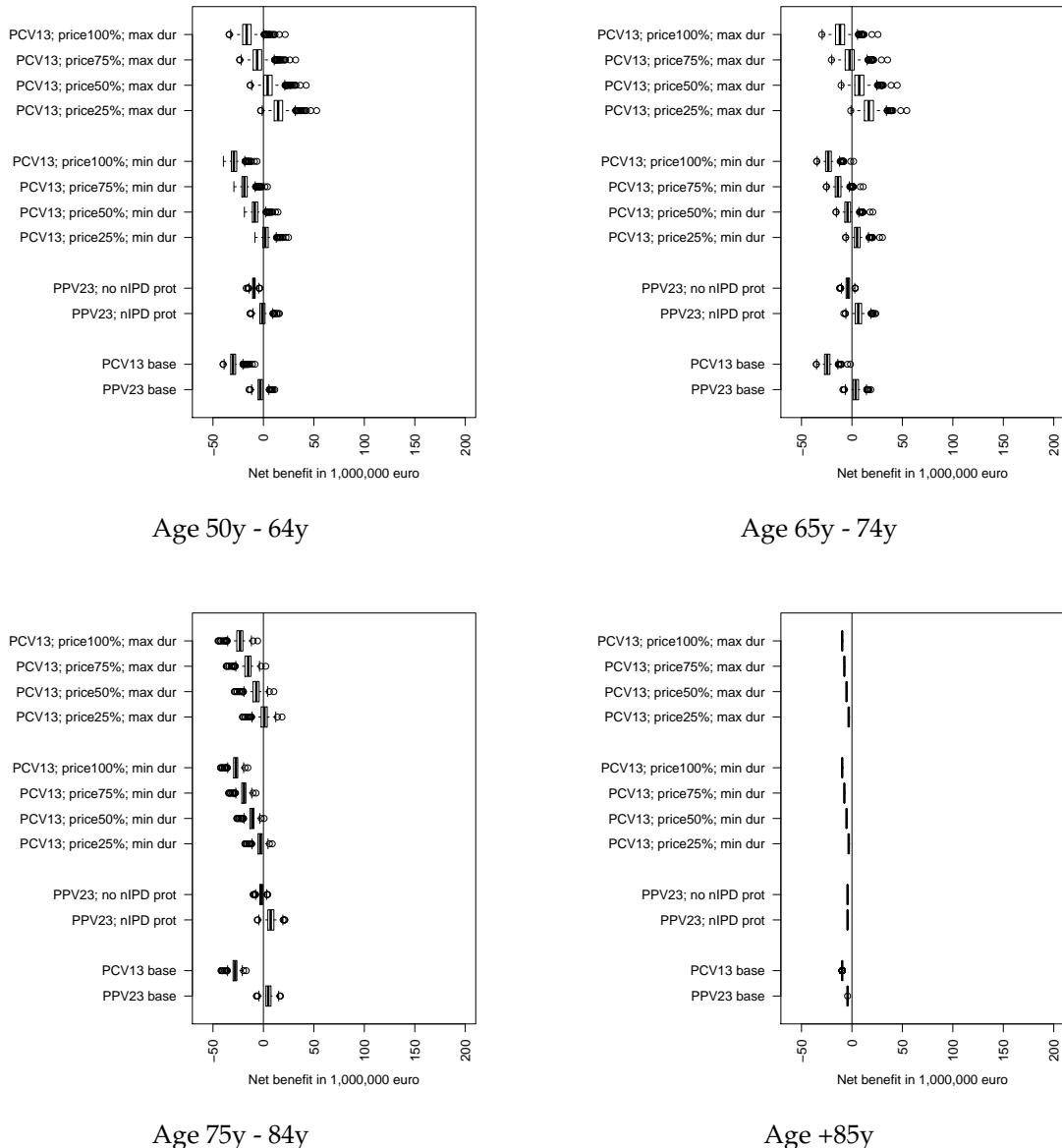
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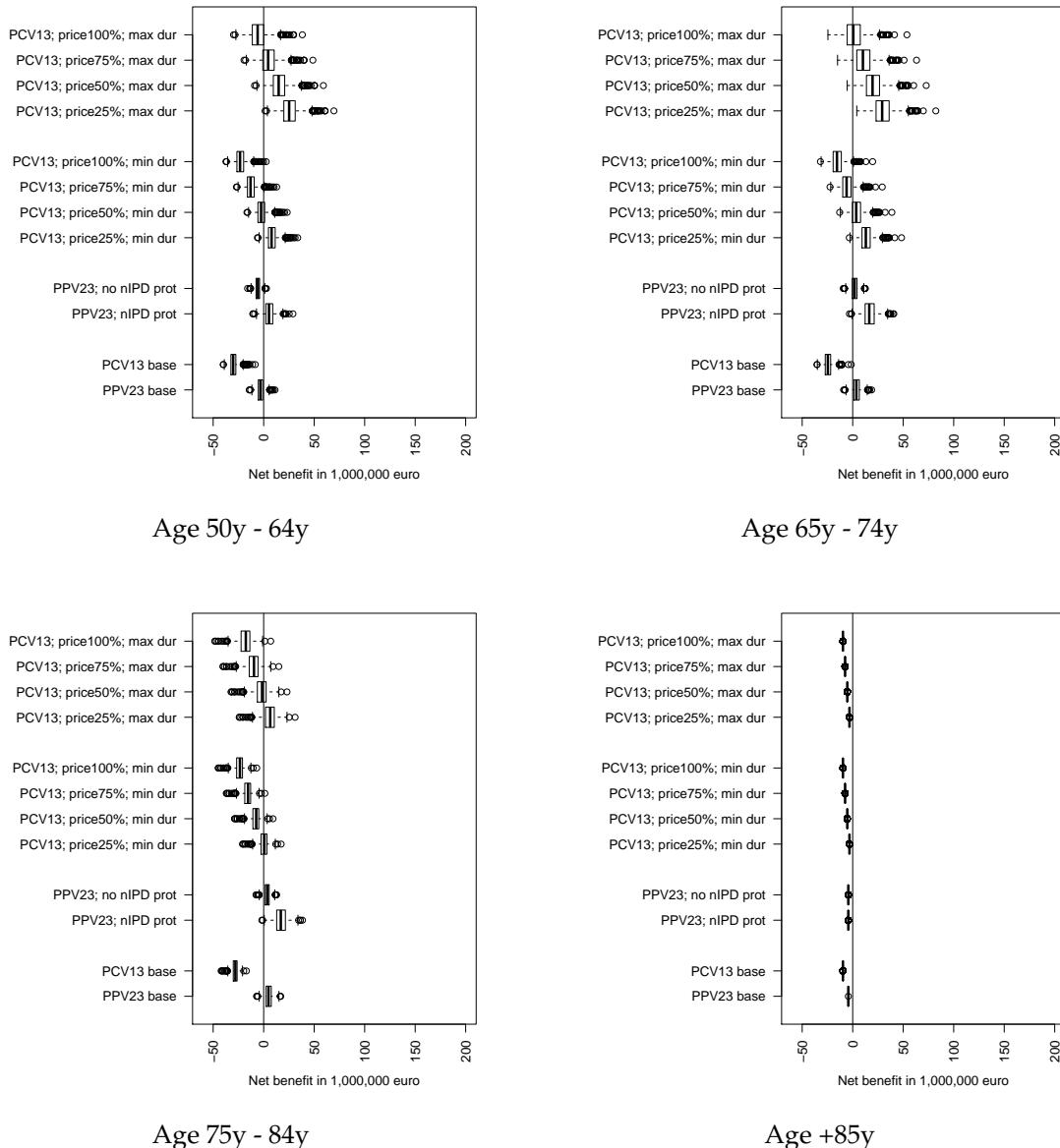
Part II

**Net benefit multivariate sensitivity analysis
using a willingness to pay of 70,000 euro per
QALY gained**

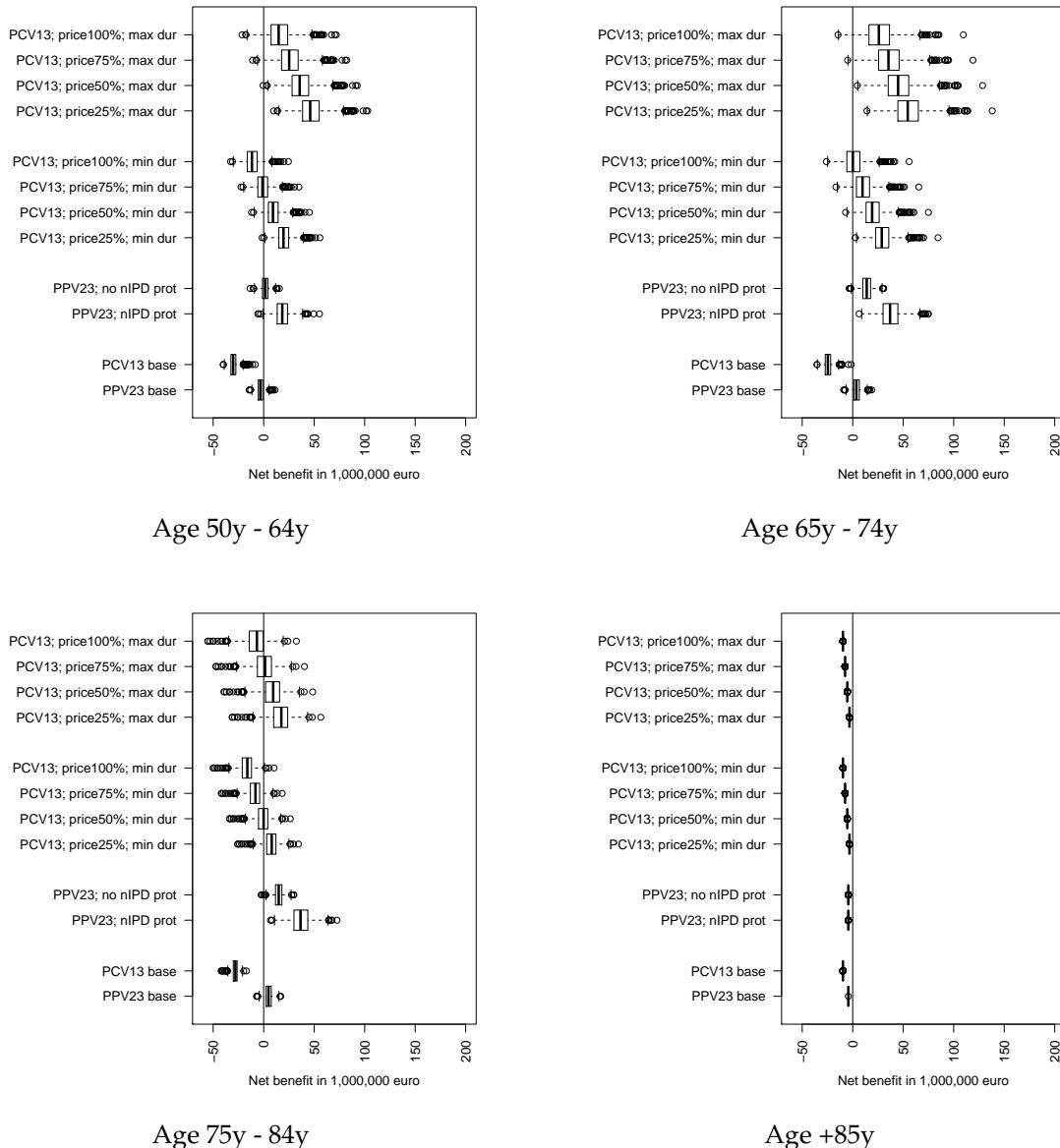
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND Willingness to pay 70,000 euro per QALY gained



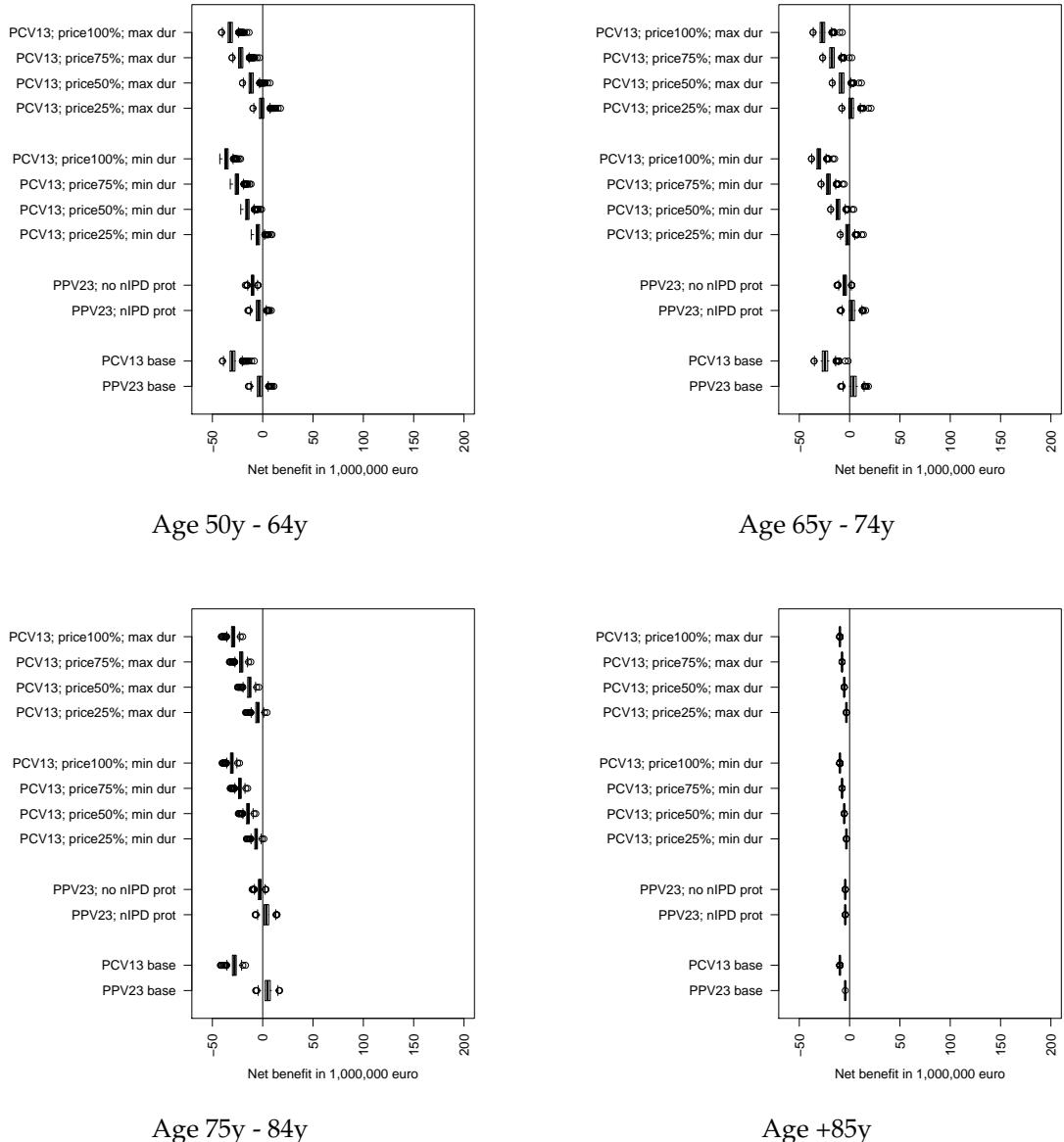
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND High hospitalised pneumococcal pneumonia incidence: 1.5x baseline AND Willingness to pay 70,000 euro per QALY gained



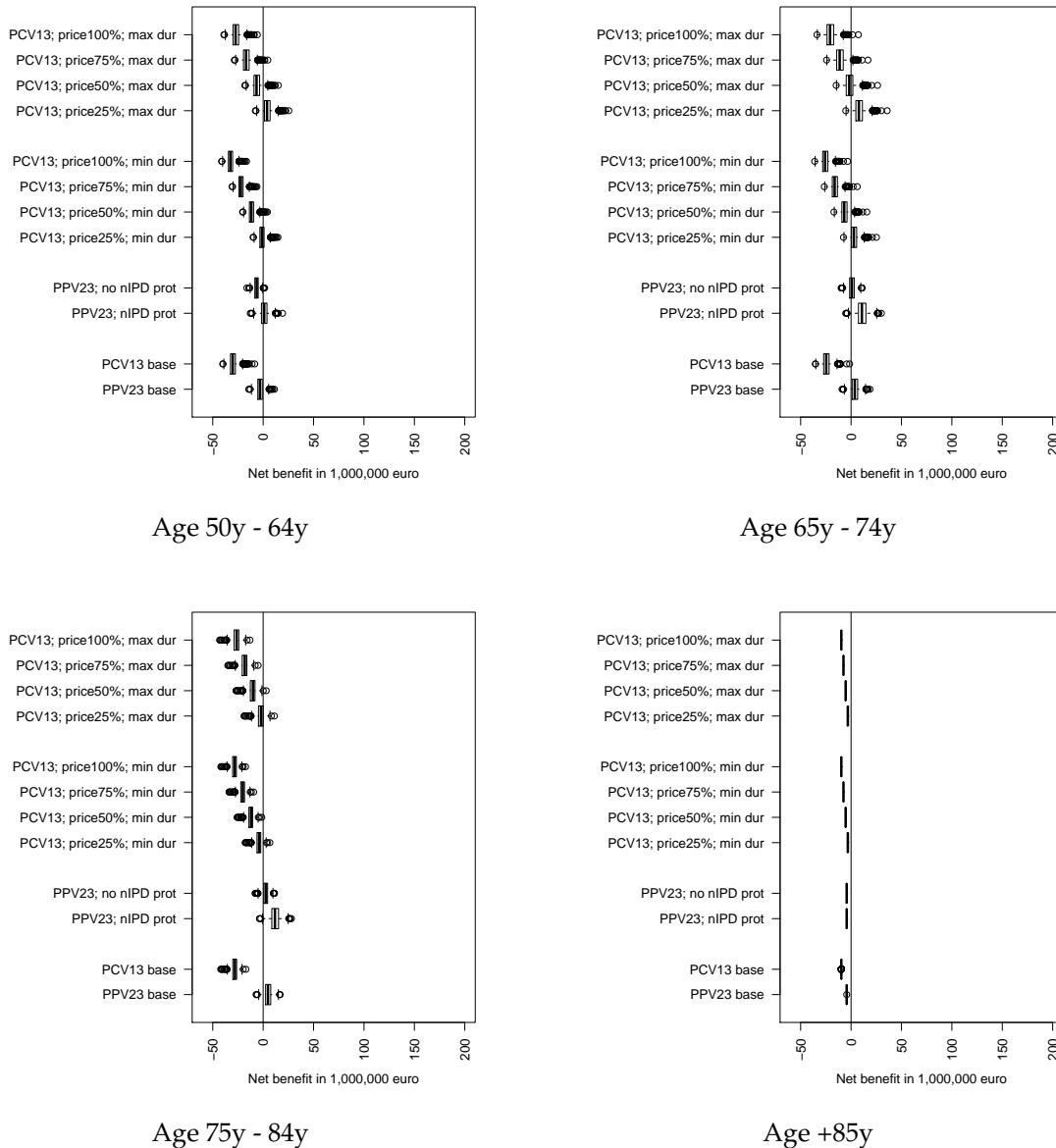
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND High hospitalised pneumococcal pneumonia incidence: 2.5x baseline AND Willingness to pay 70,000 euro per QALY gained



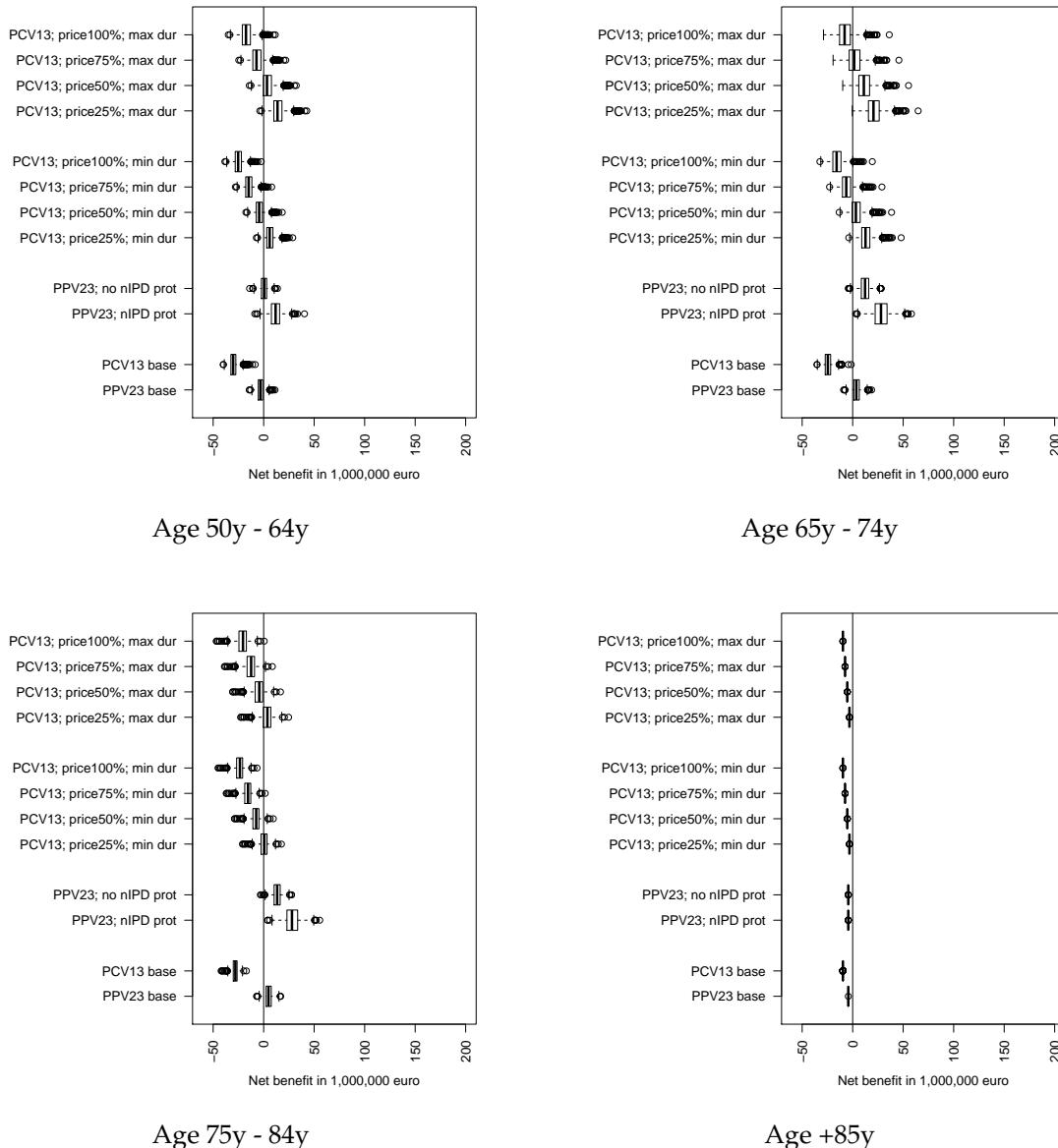
Maximum PCV13 incidence decline (PCV13 serotype incidence -20% per year, baseline (76%) replacement) AND Willingness to pay 70,000 euro per QALY gained



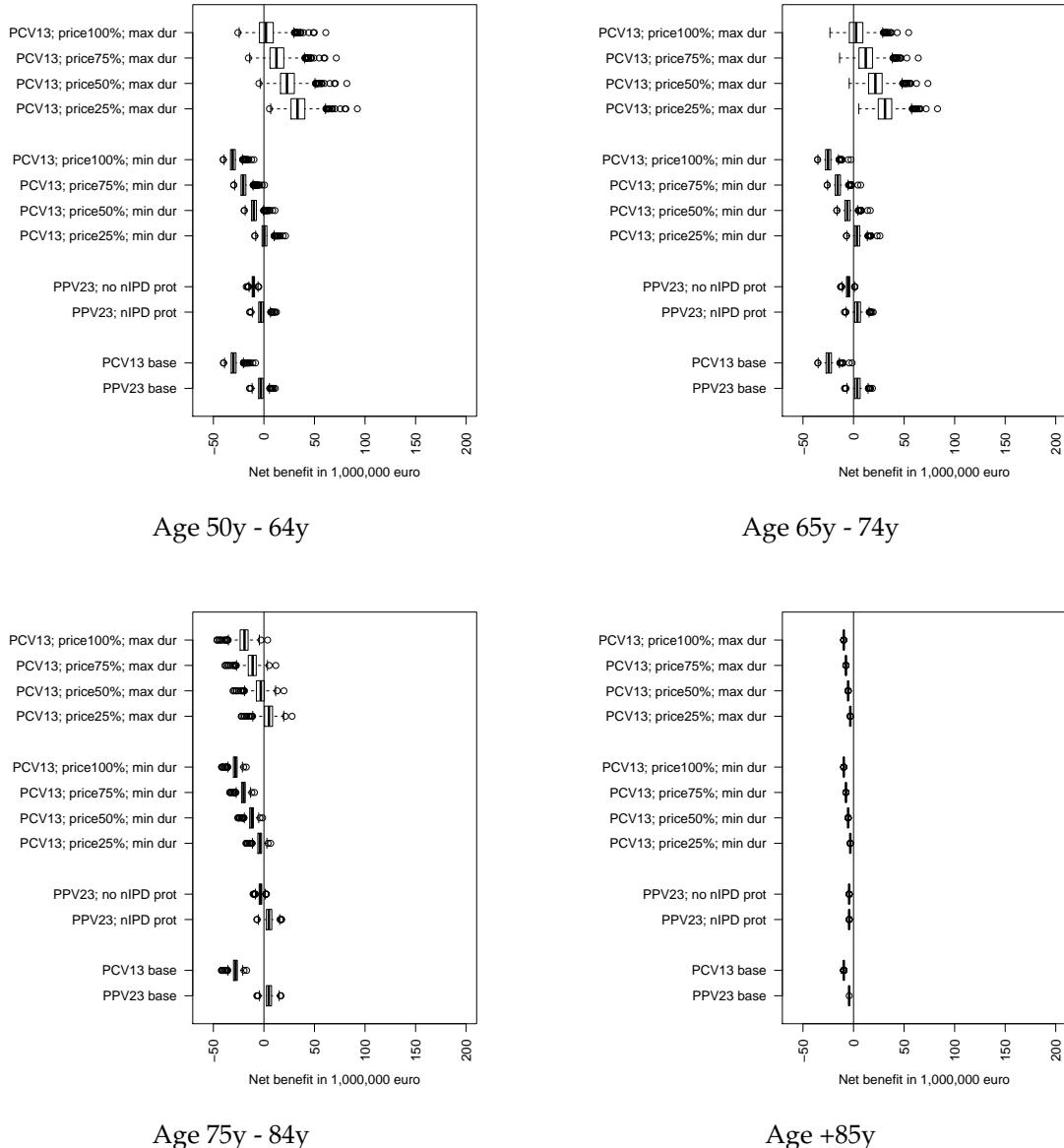
Maximum PCV13 incidence decline (PCV13 serotype incidence -20% per year, baseline (76%) replacement) AND High hospitalised pneumococcal pneumonia incidence: 1.5x baseline AND Willingness to pay 70,000 euro per QALY gained



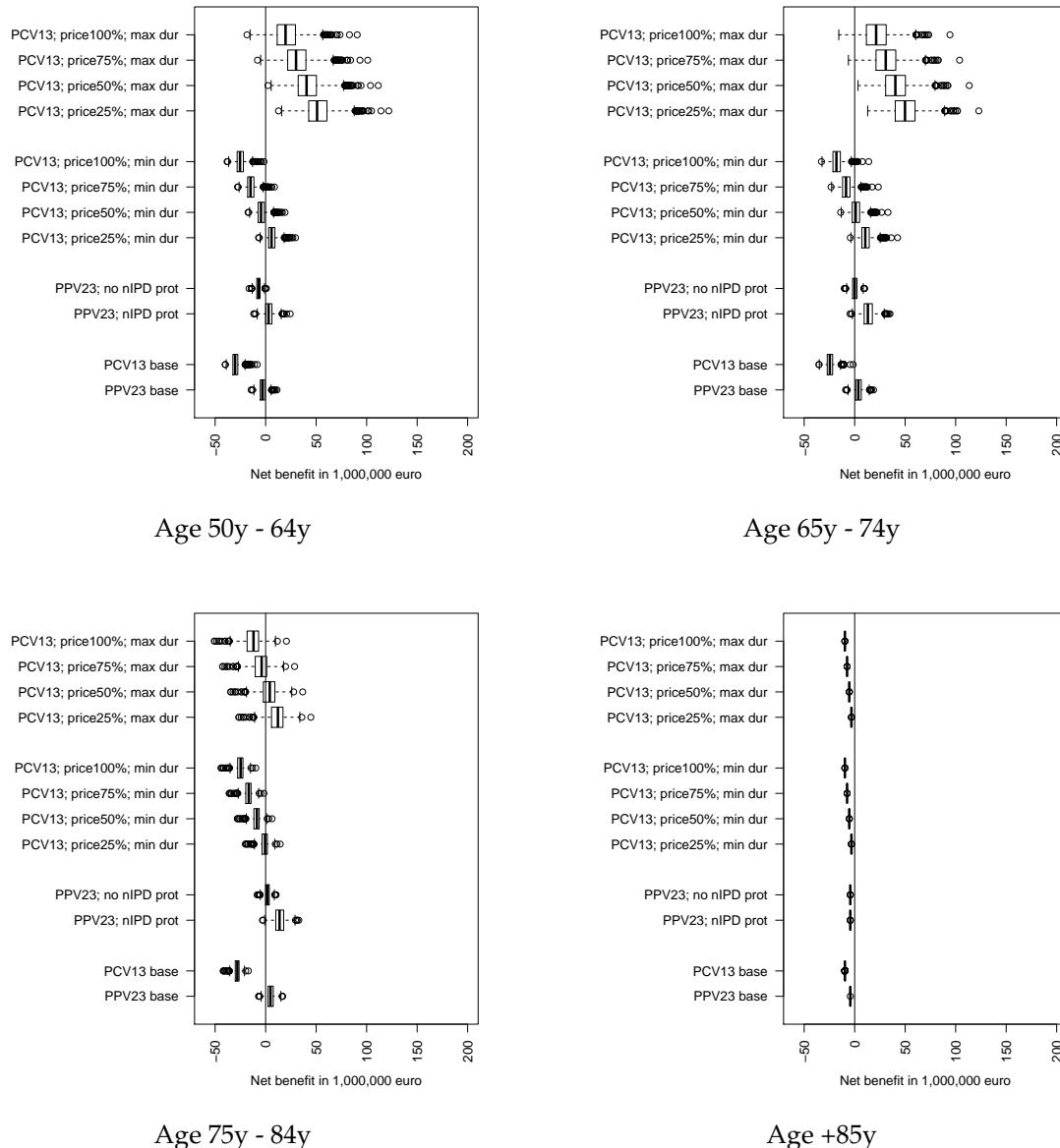
Maximum PCV13 incidence decline (PCV13 serotype incidence -20% per year, baseline (76%) replacement) AND High hospitalised pneumococcal pneumonia incidence: 2.5x baseline AND Willingness to pay 70,000 euro per QALY gained



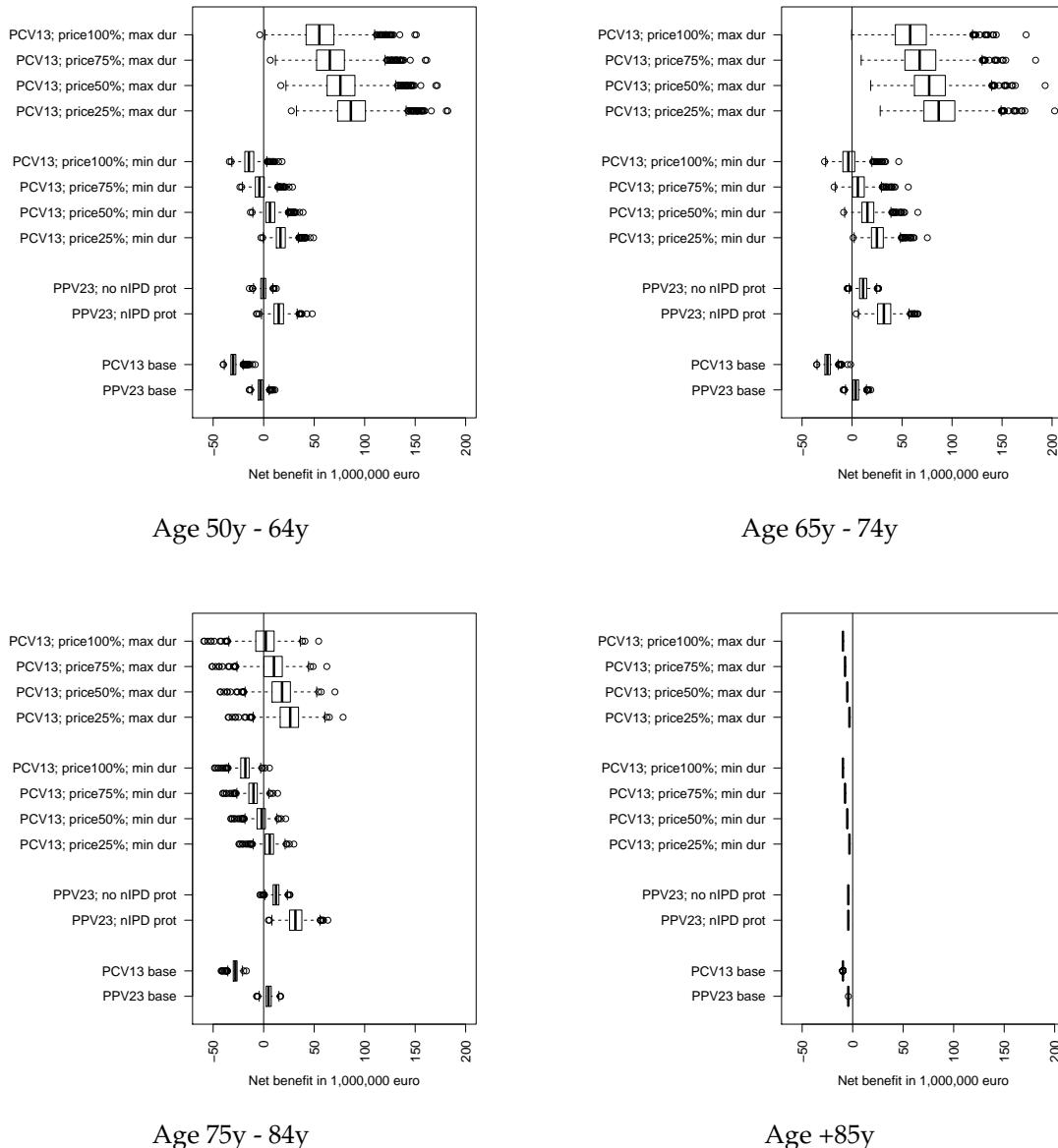
**Slow PCV13 serotype relapse: PCV13 incidence returns to 2015 value within 15 years
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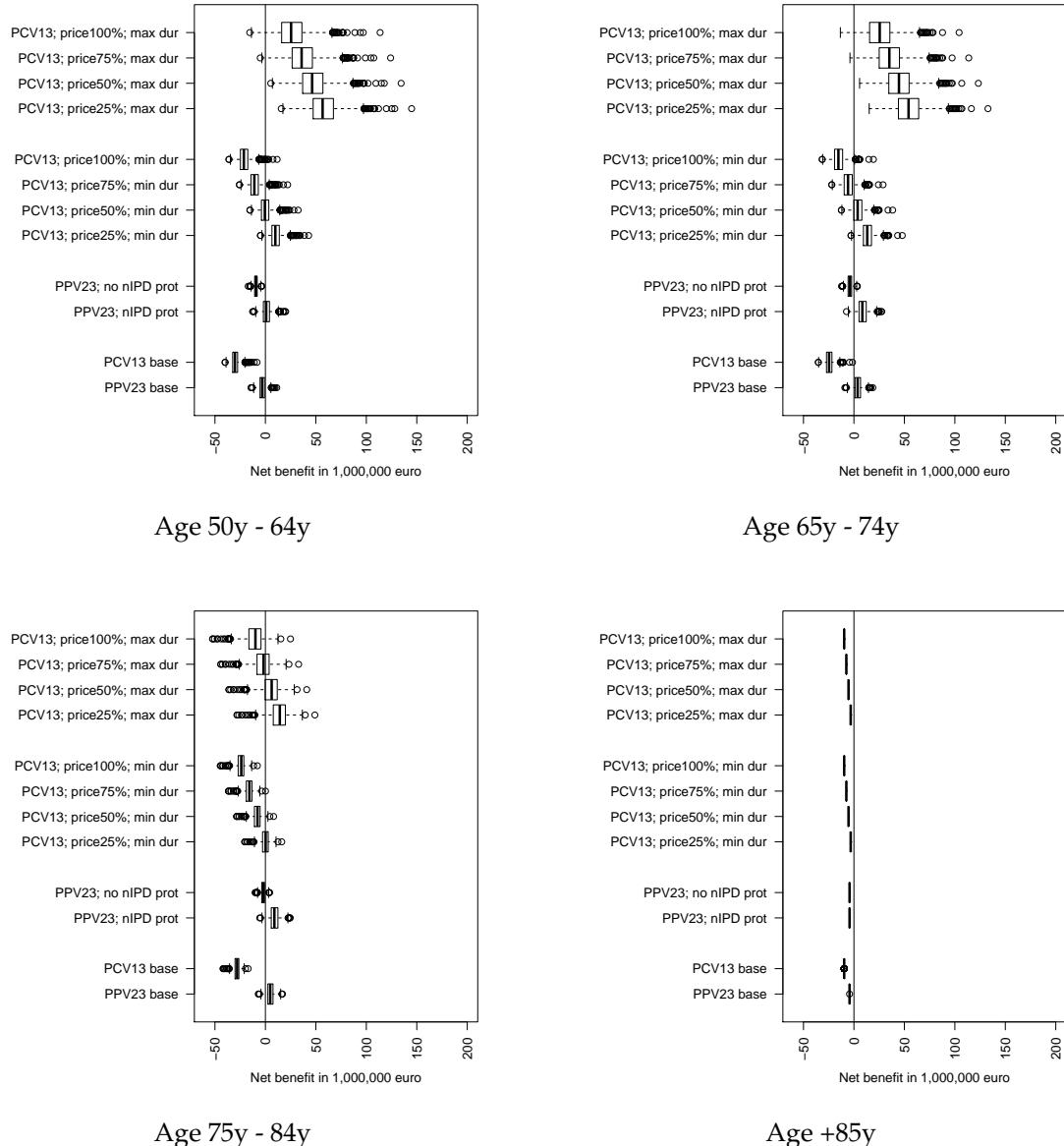
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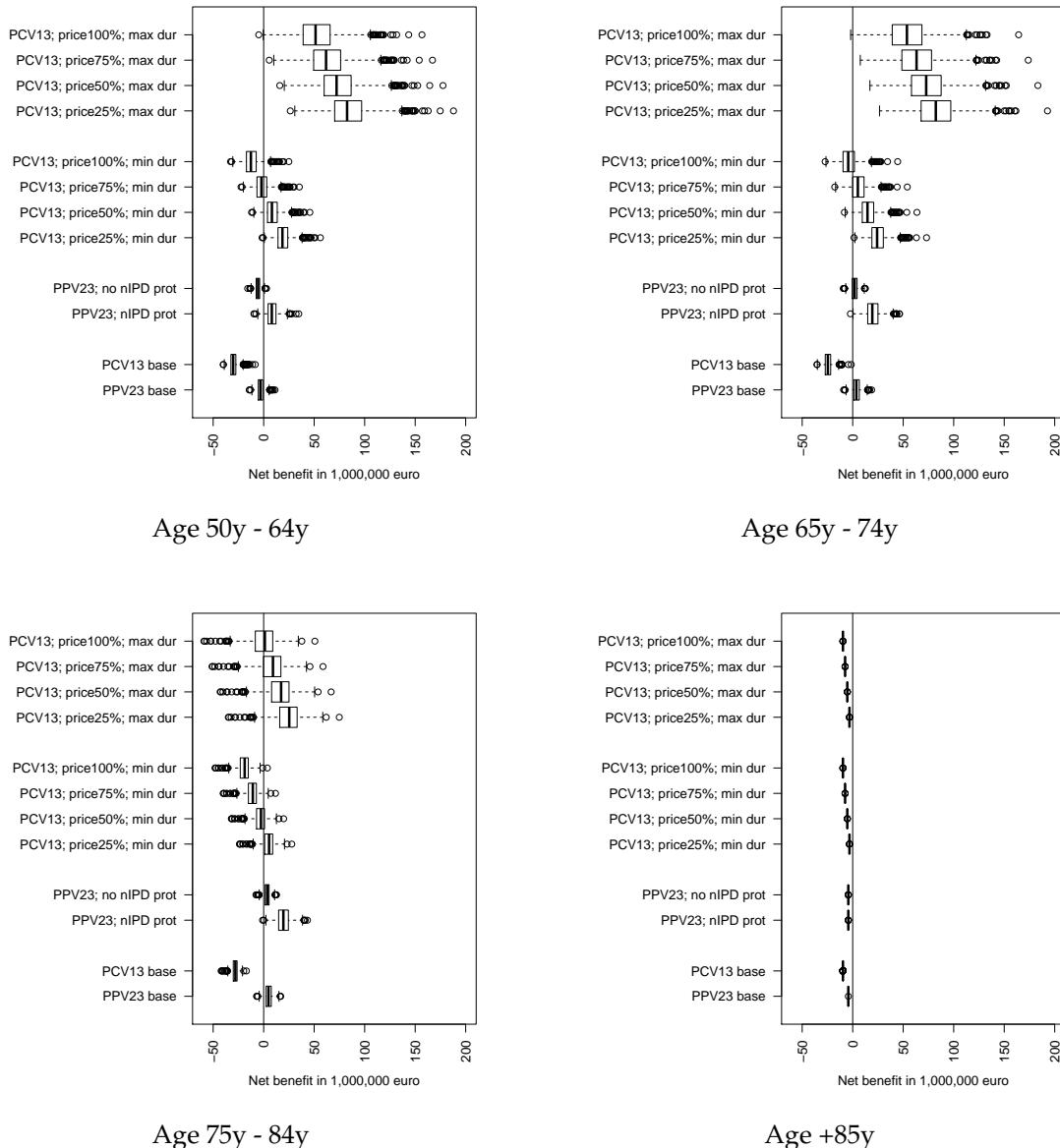
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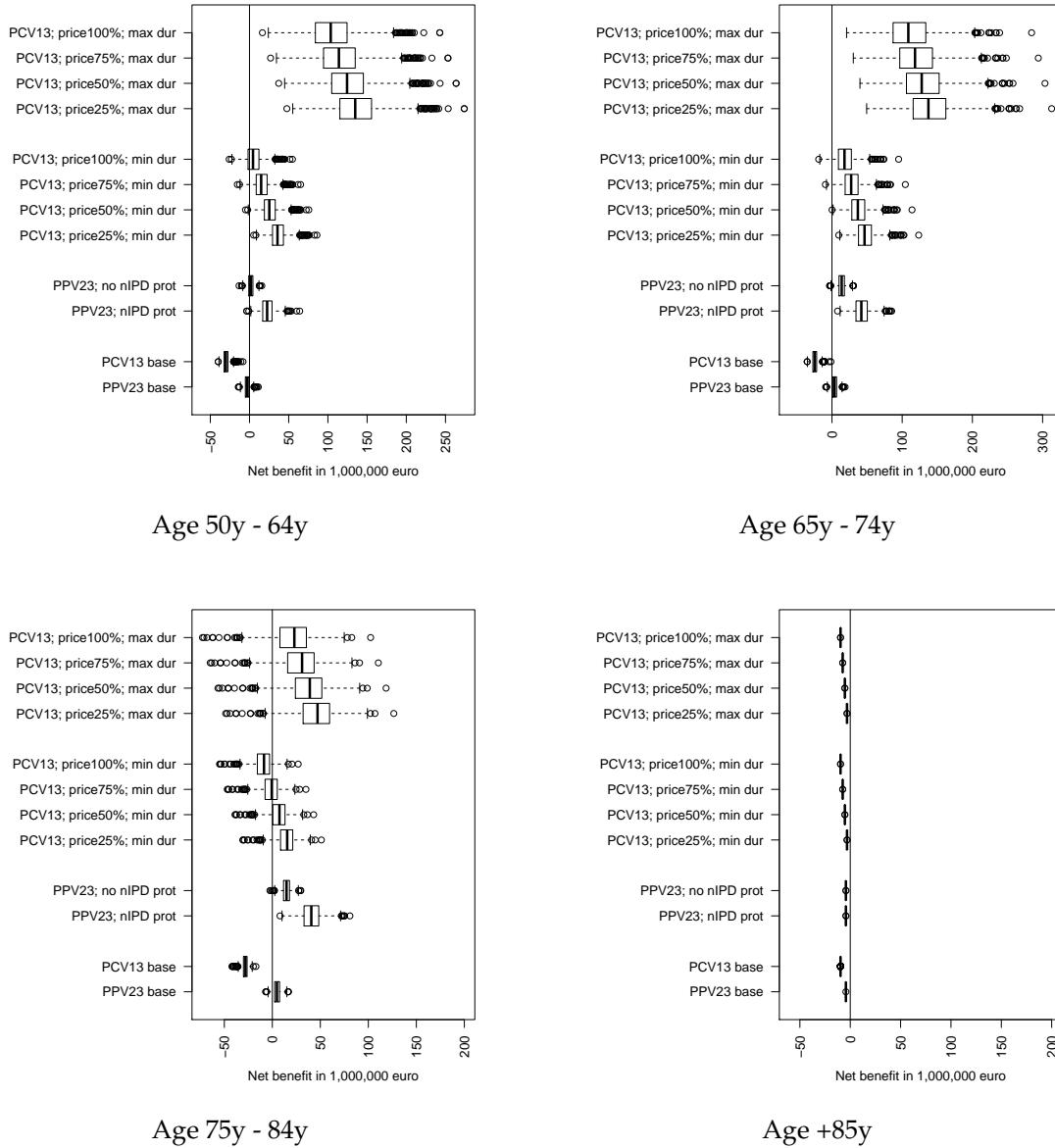
**Quick PCV13 serotype relapse: PCV13 incidence returns to 2015 value within 7 years
AND Willingness to pay 70,000 euro per QALY gained**



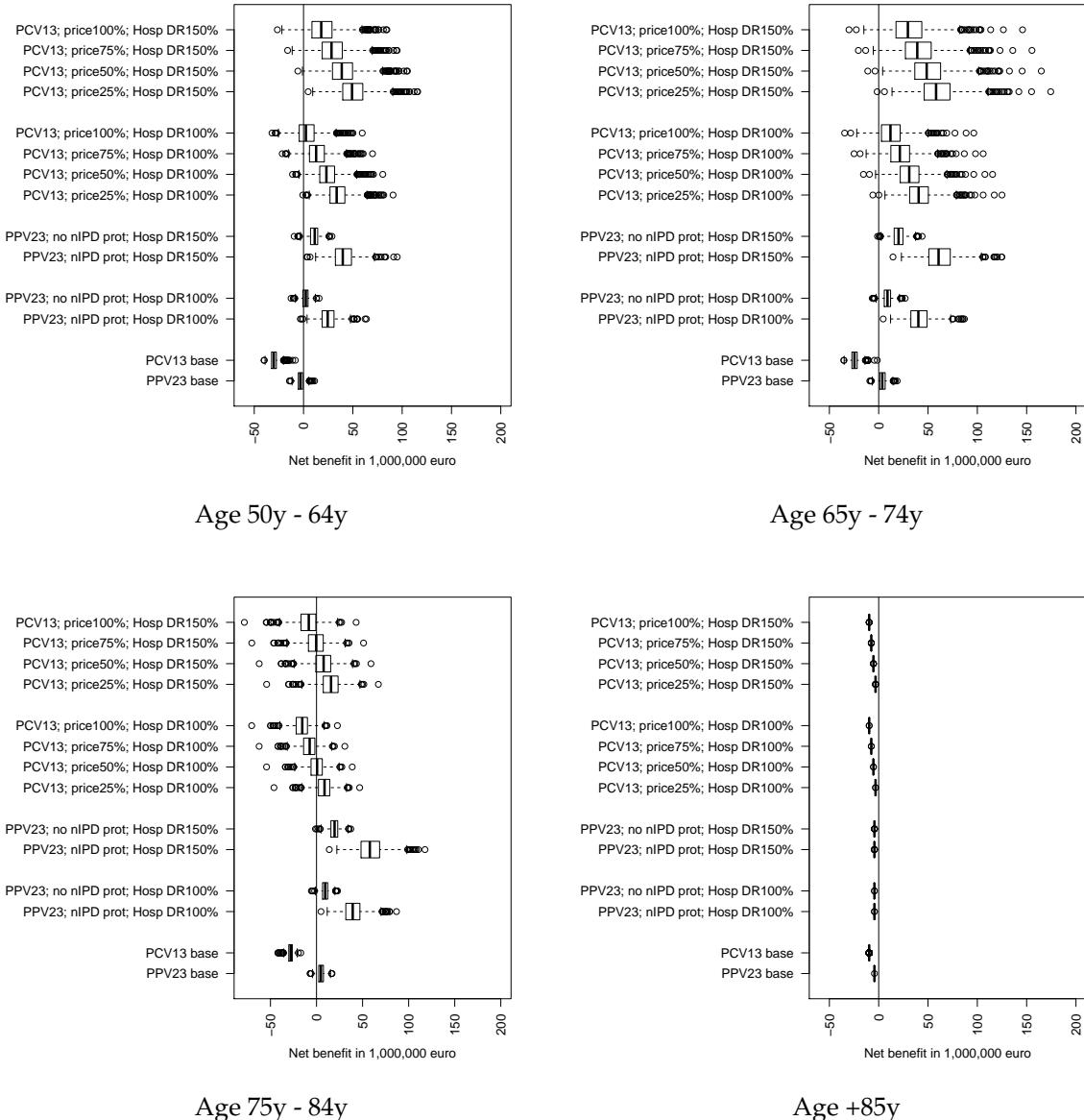
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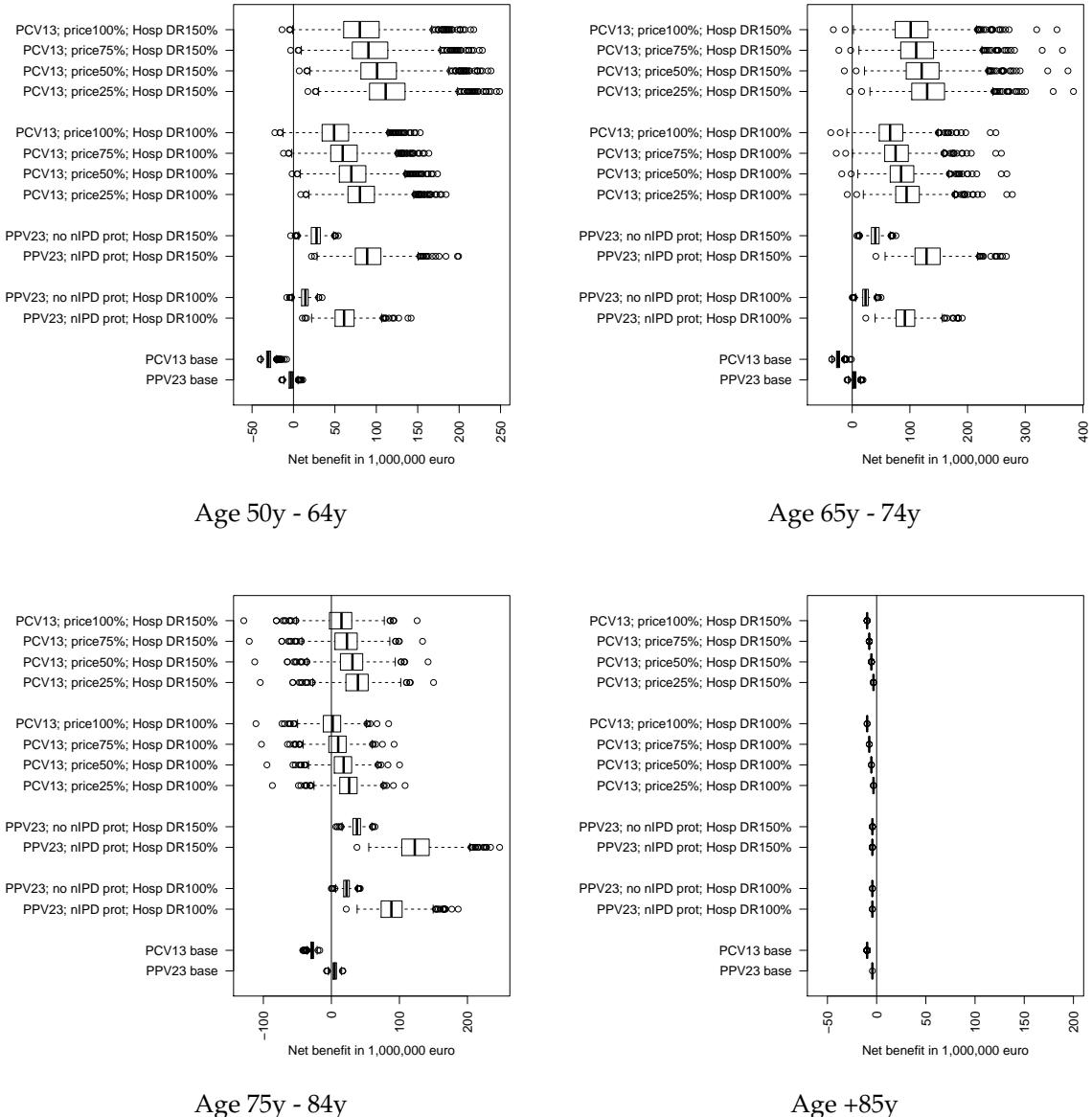
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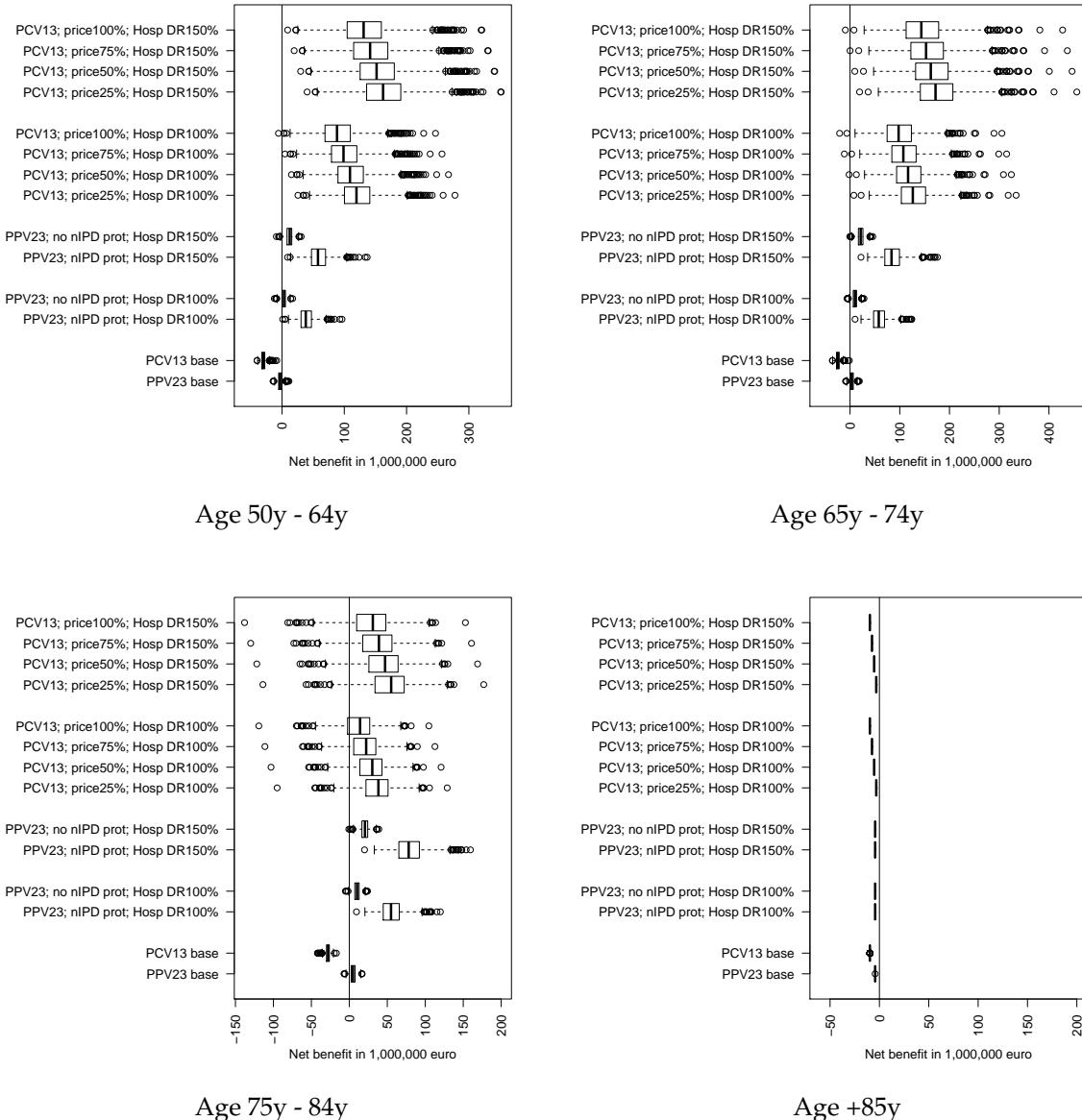
**HIGHER BURDEN: Using QALY loss of the medium risk group AND All incidences
200% of baseline AND Willingness to pay 70,000 euro per QALY gained**



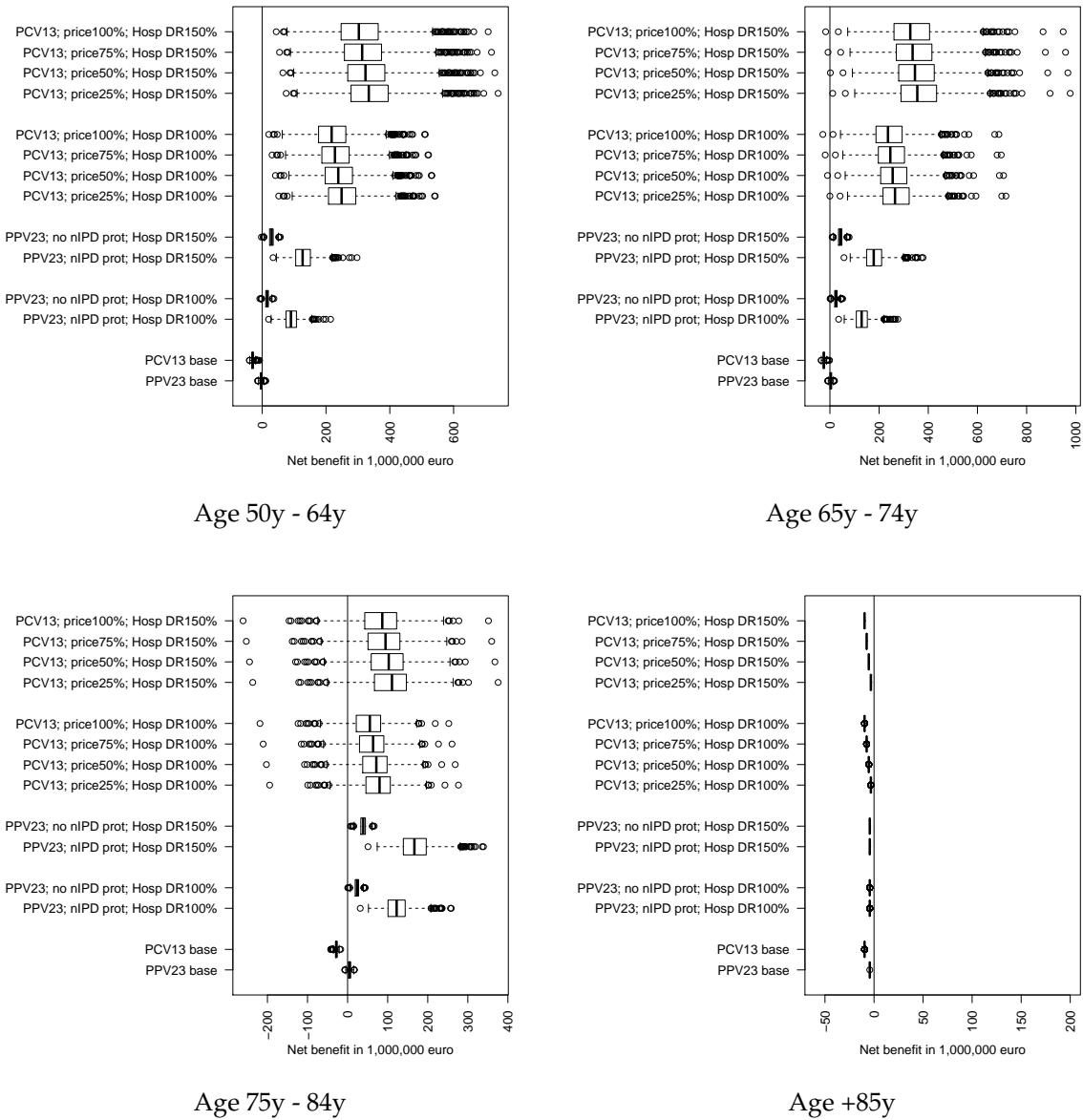
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300% of baseline AND Willingness to pay 70,000 euro per QALY gained**



HIGHER BURDEN: Using QALY loss of the medium risk group AND All incidences 200% of baseline AND Quick PCV13 serotype relapse: PCV13 incidence returns to 2015 value within 7 years AND Willingness to pay 70,000 euro per QALY gained



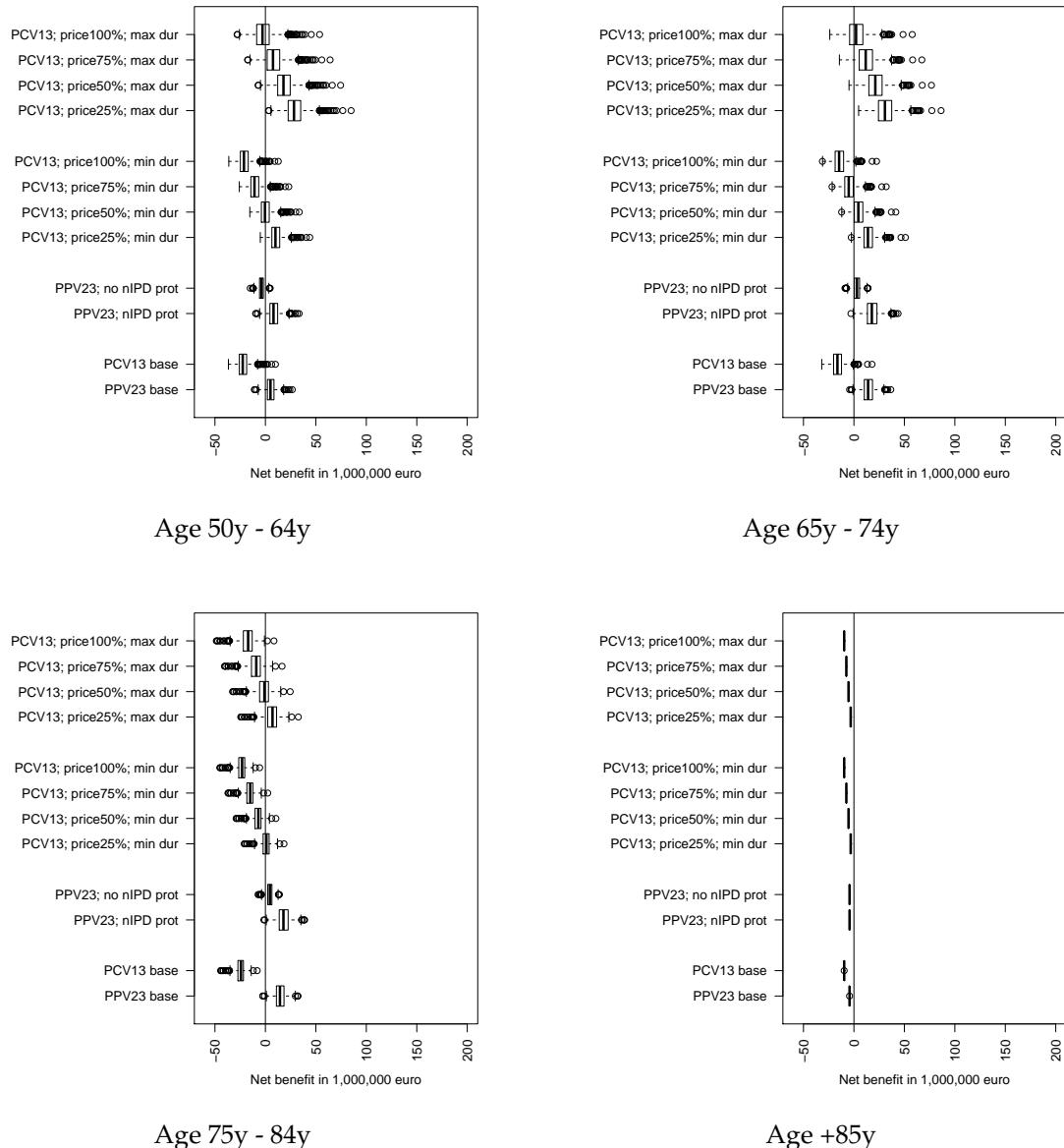
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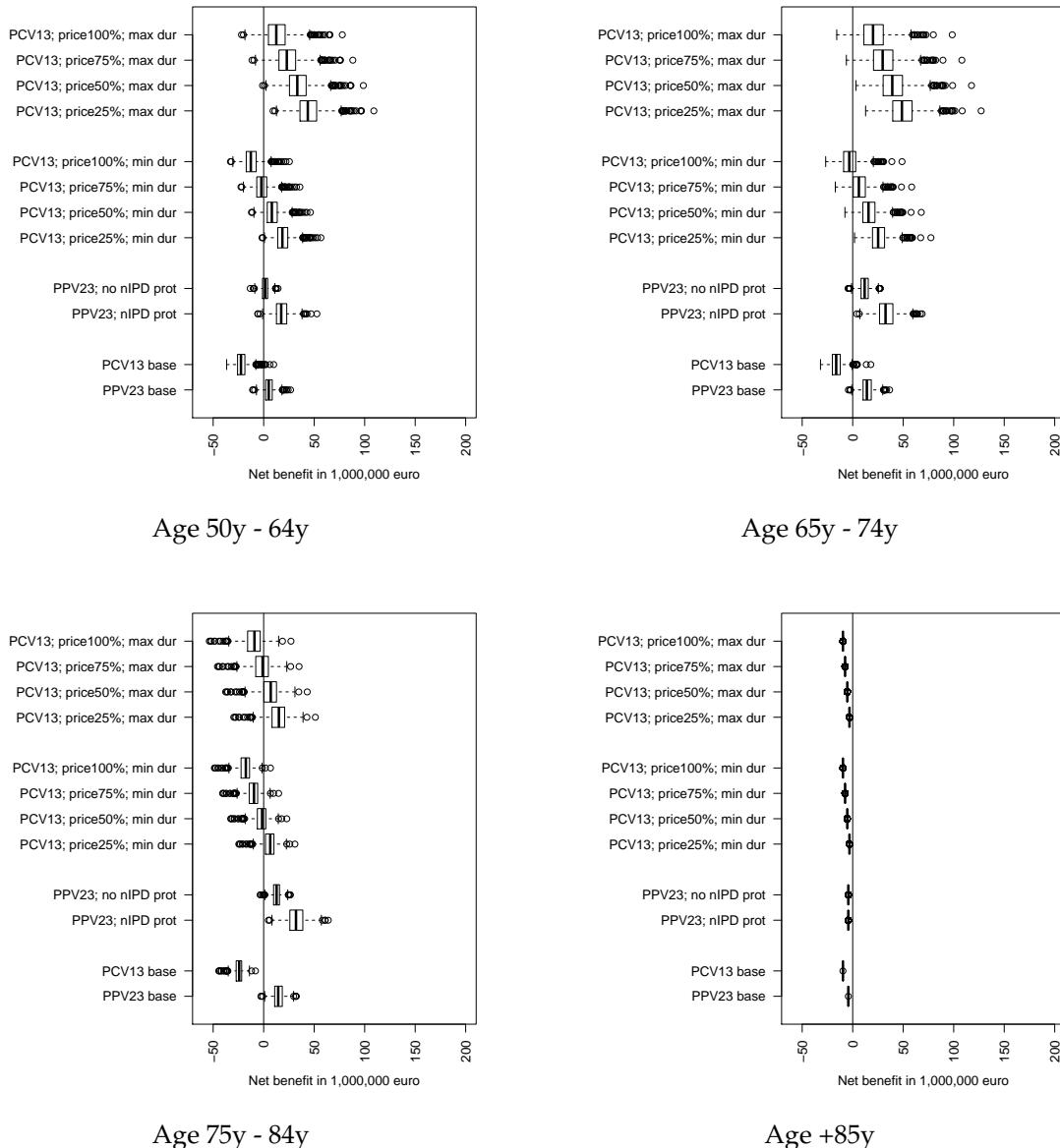
Part III

**Net benefit multivariate sensitivity analysis
using a willingness to pay of 105,000 euro
per QALY gained**

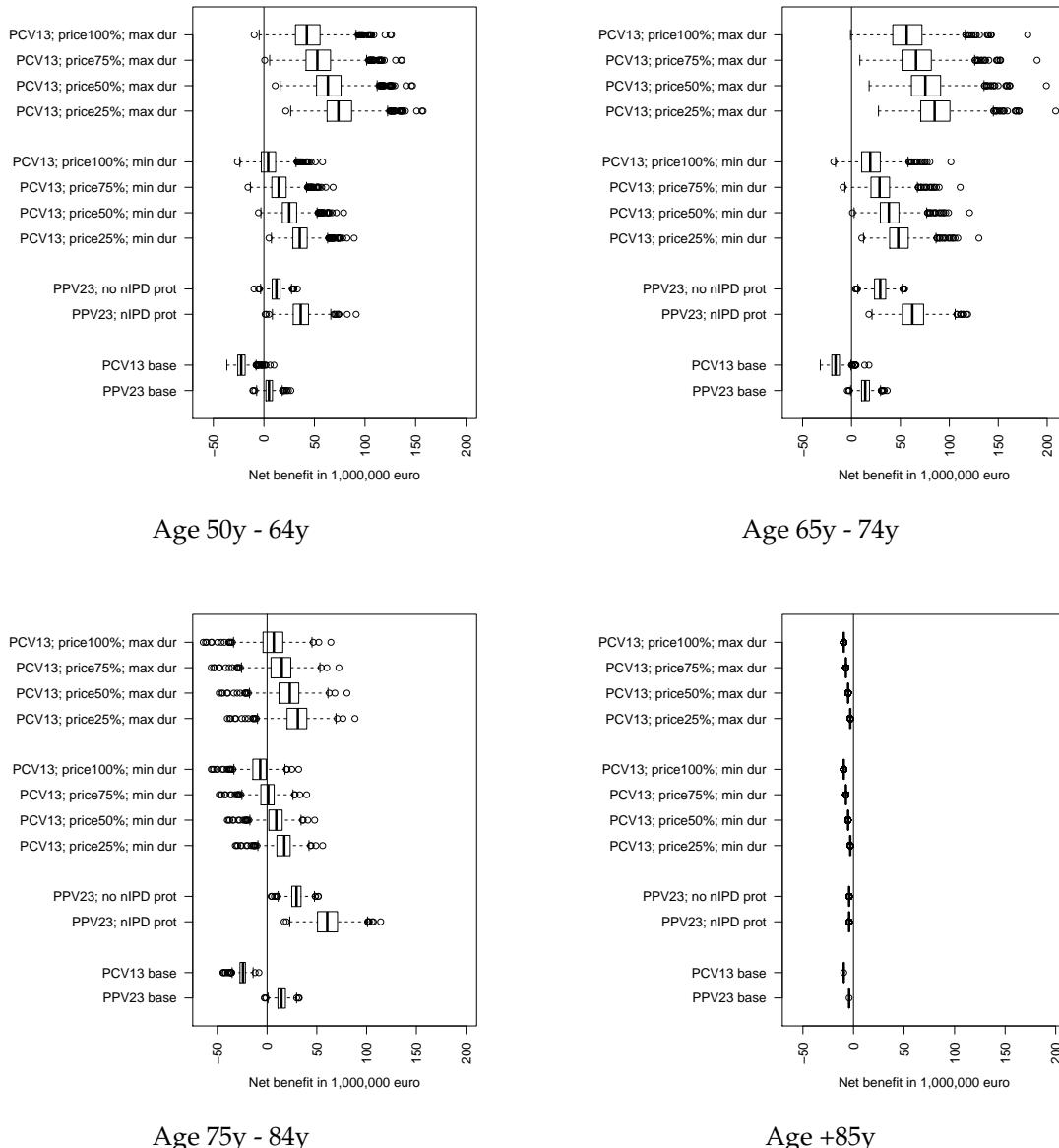
Minimum PCV13 incidence decline (PCV13 serotype incidence -10% per year, baseline (76%) replacement) AND Willingness to pay 105,000 euro per QALY gained



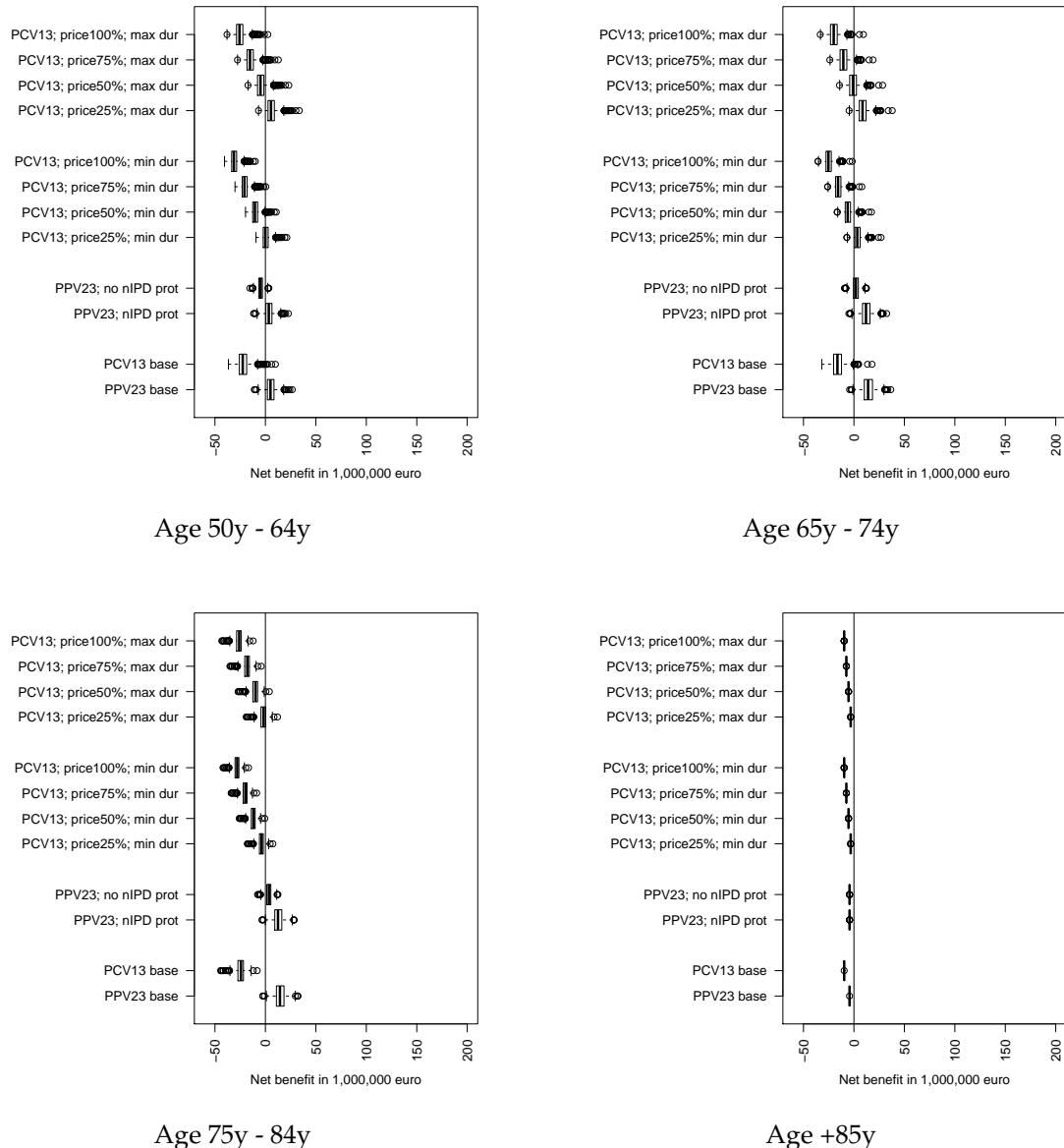
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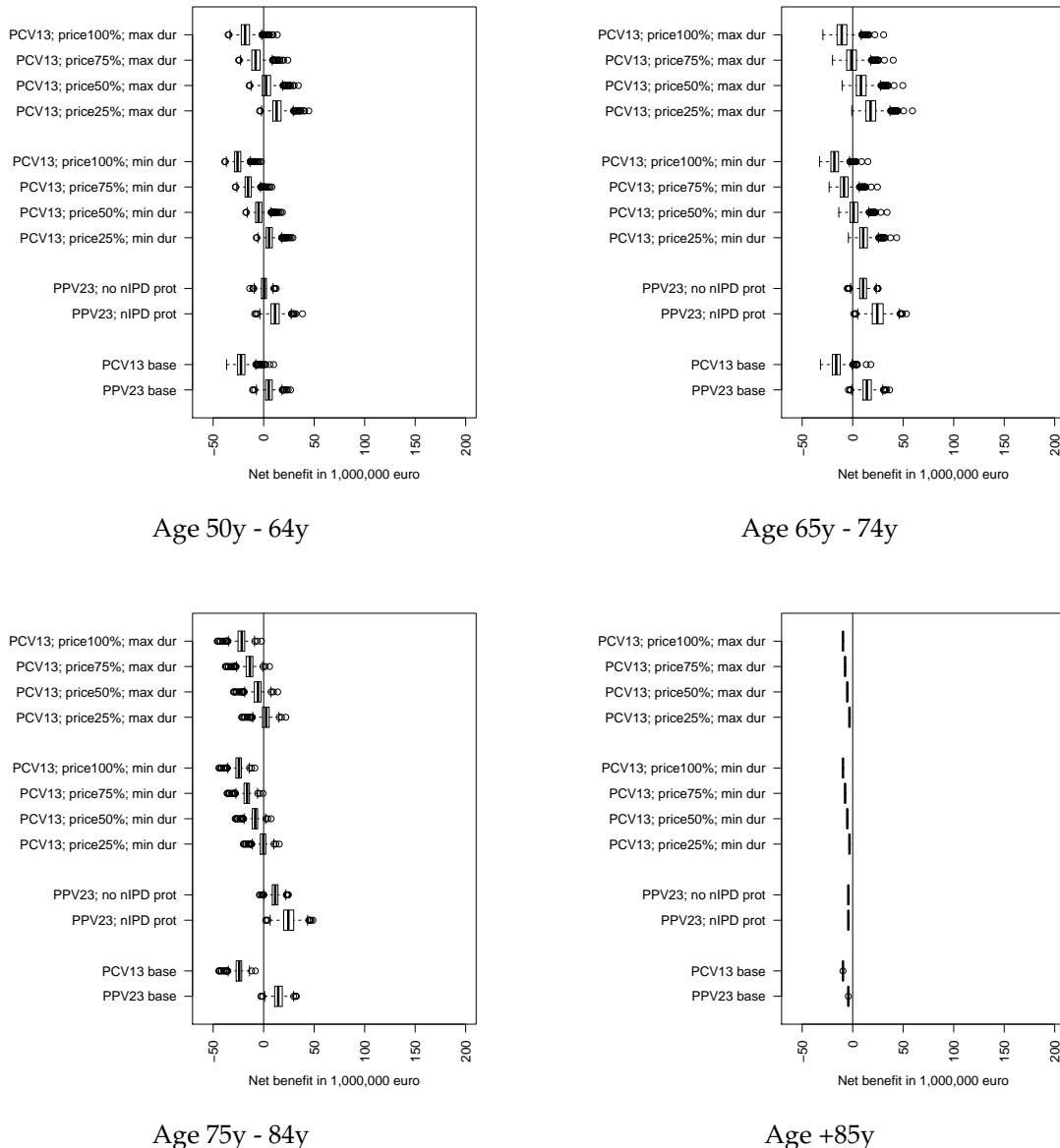
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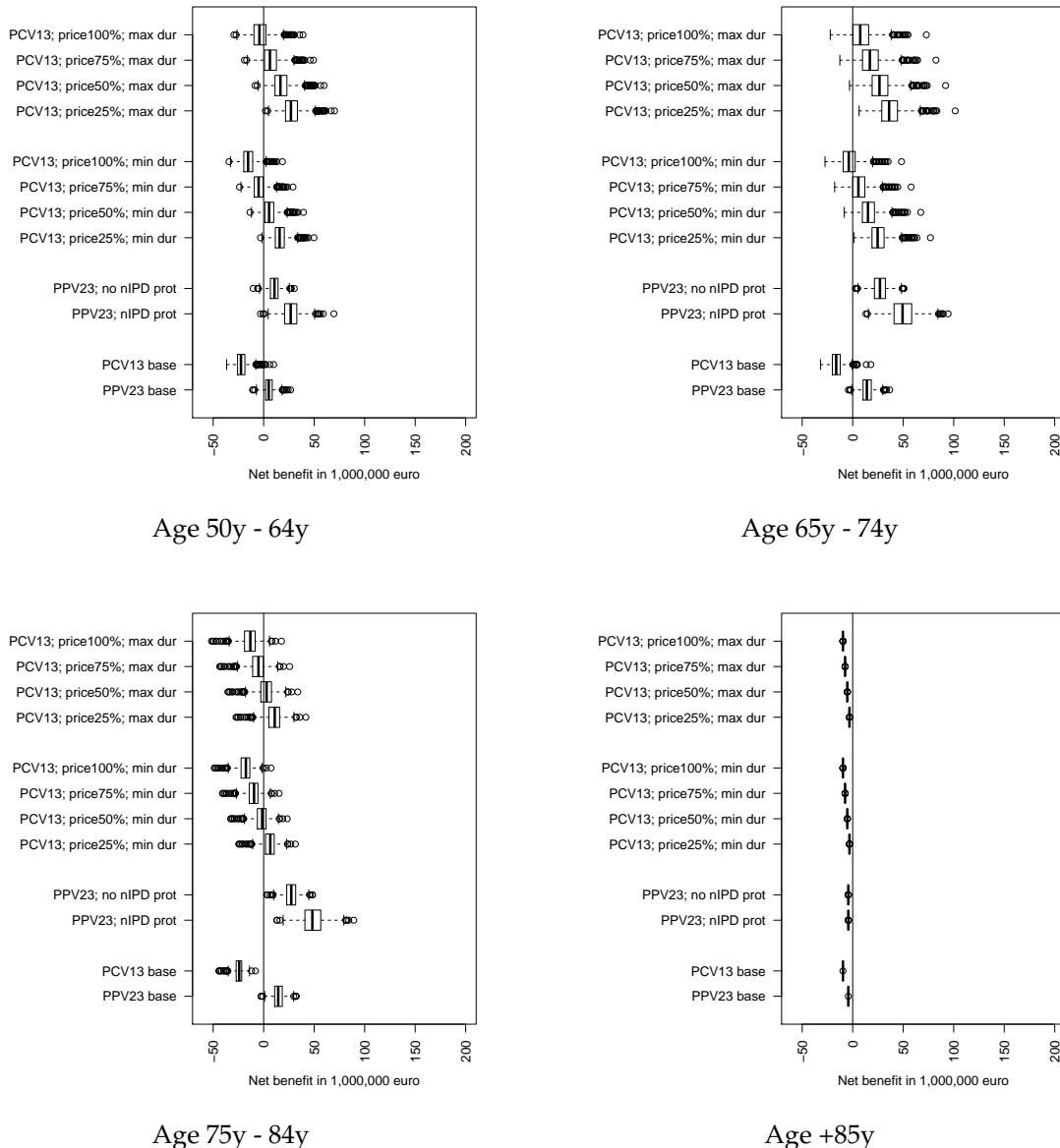
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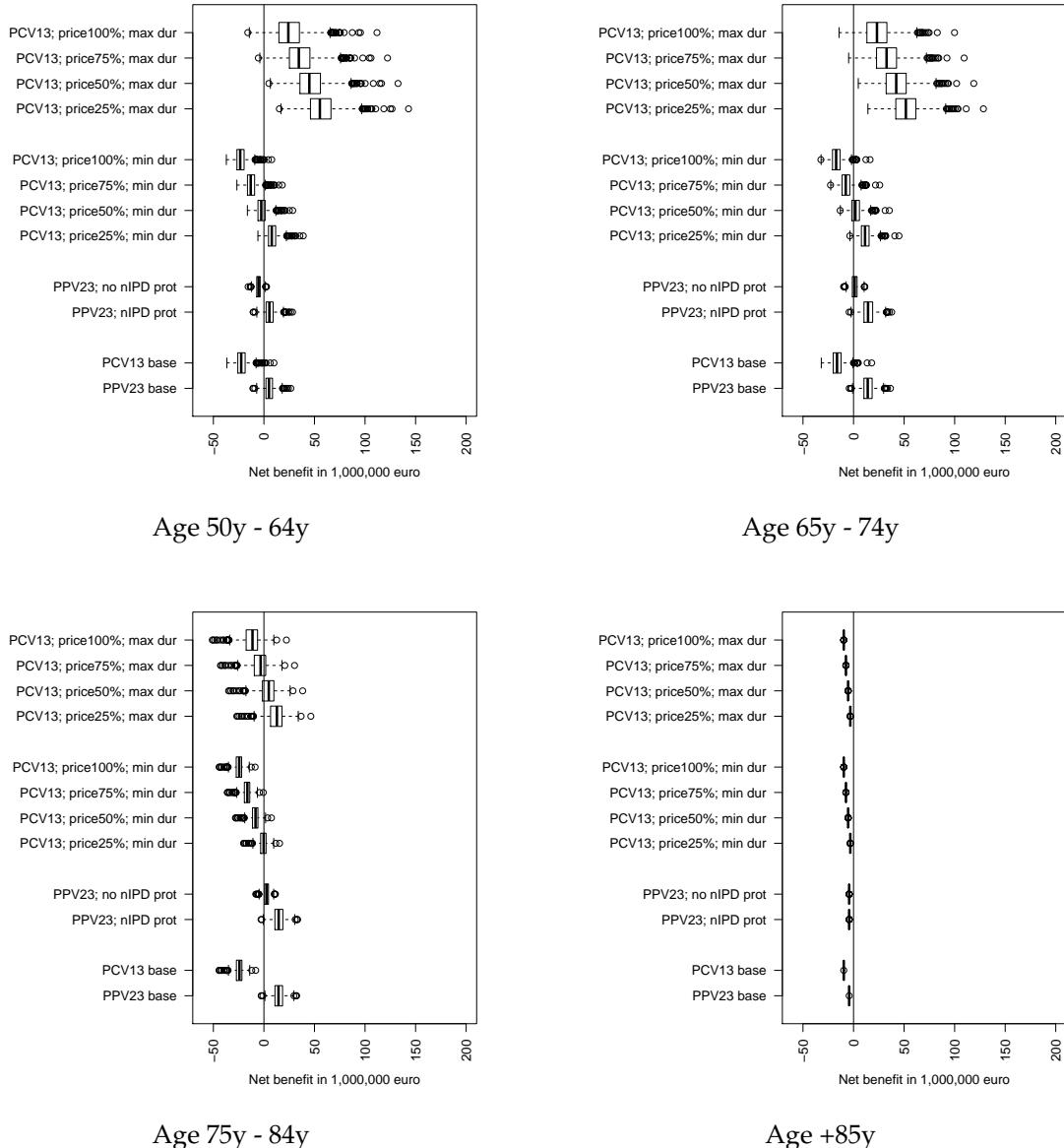
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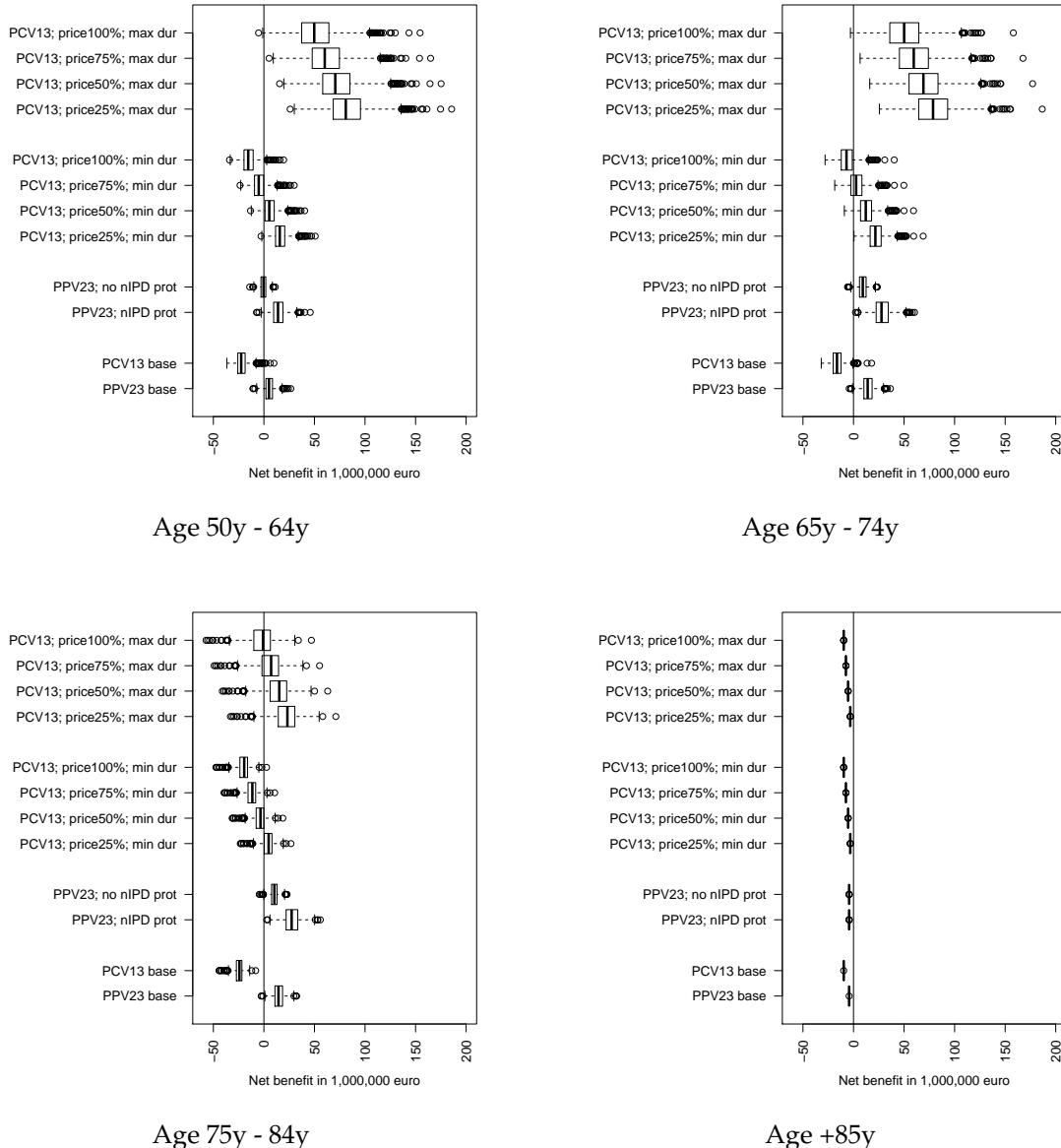
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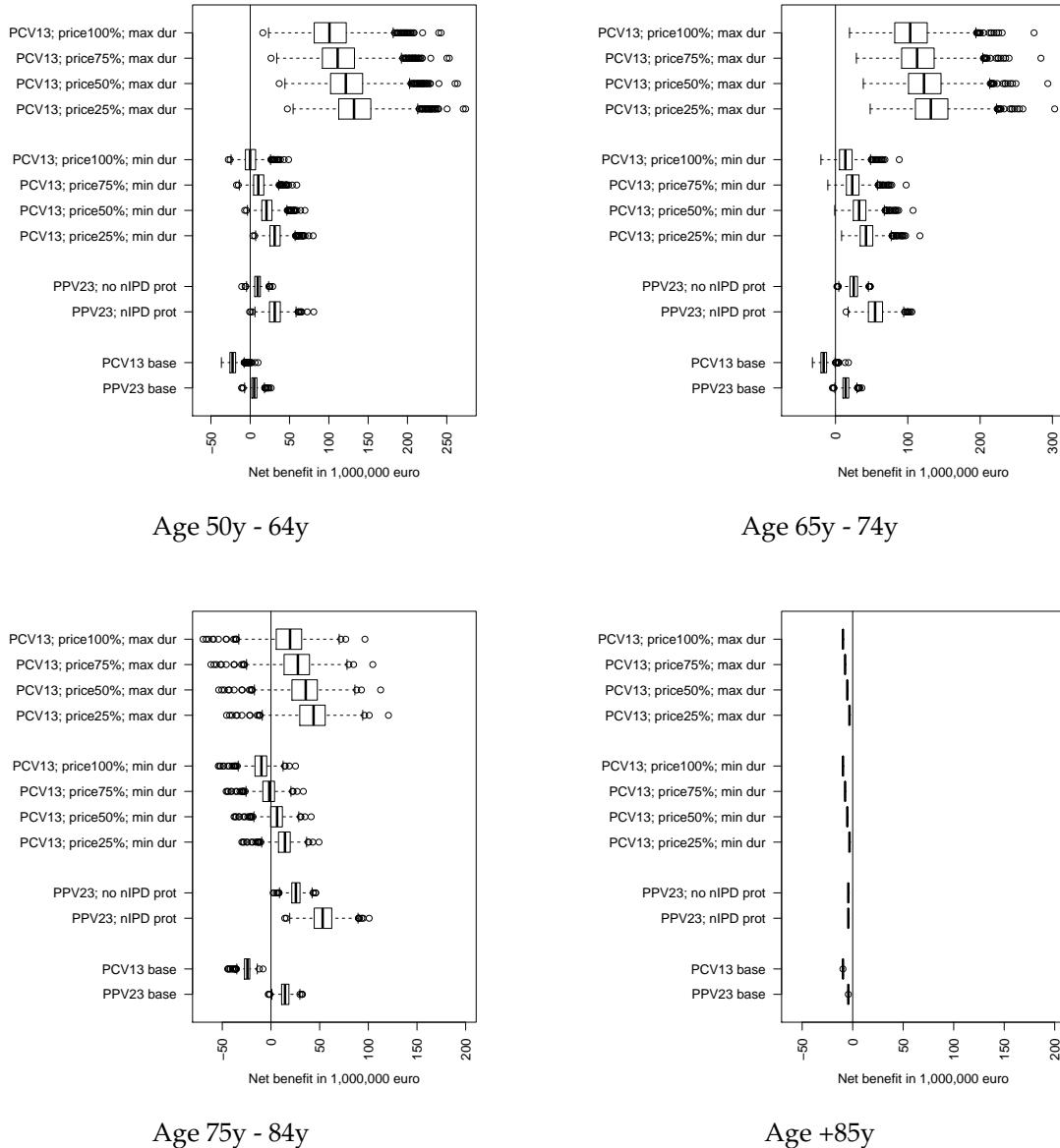
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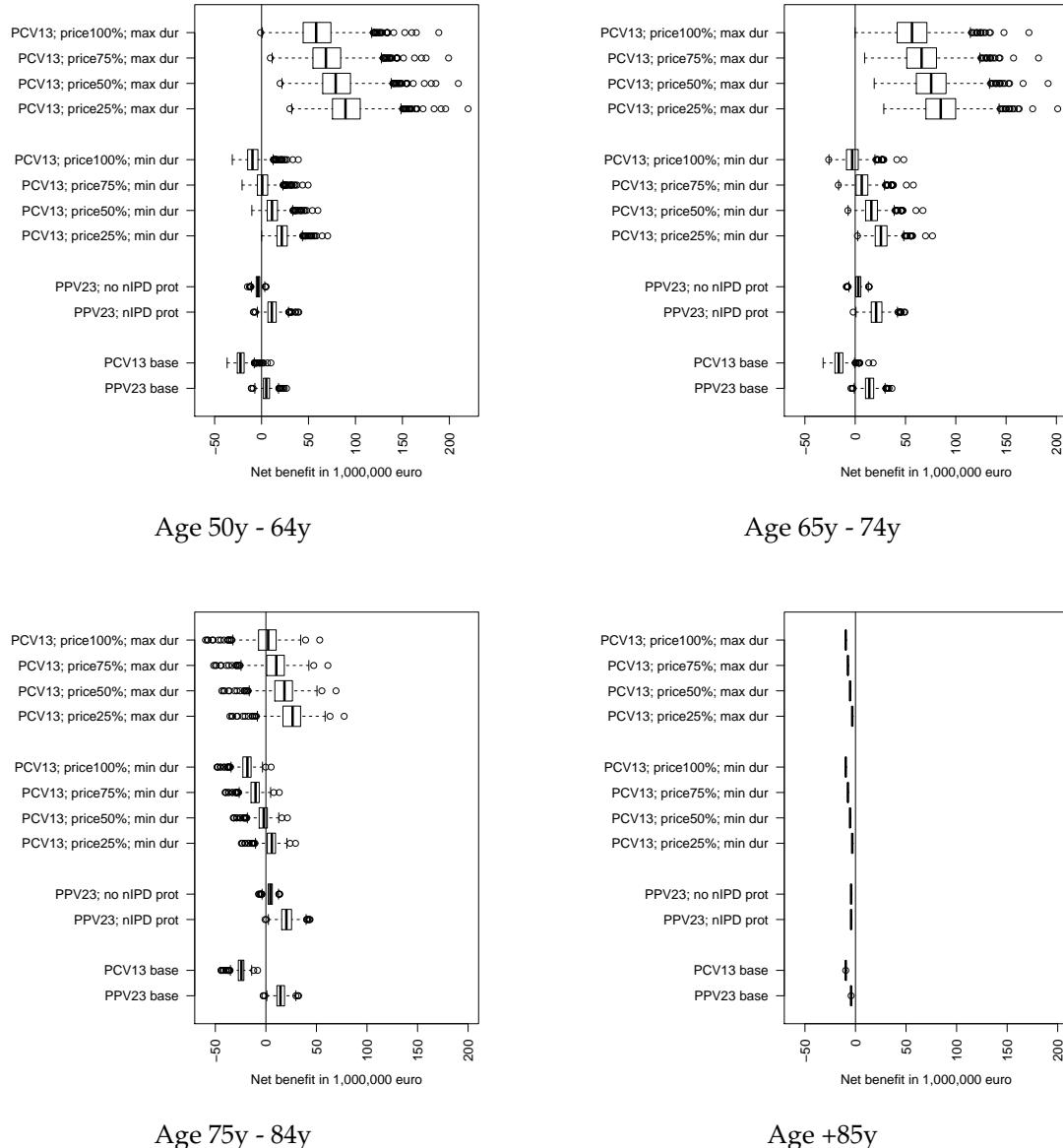
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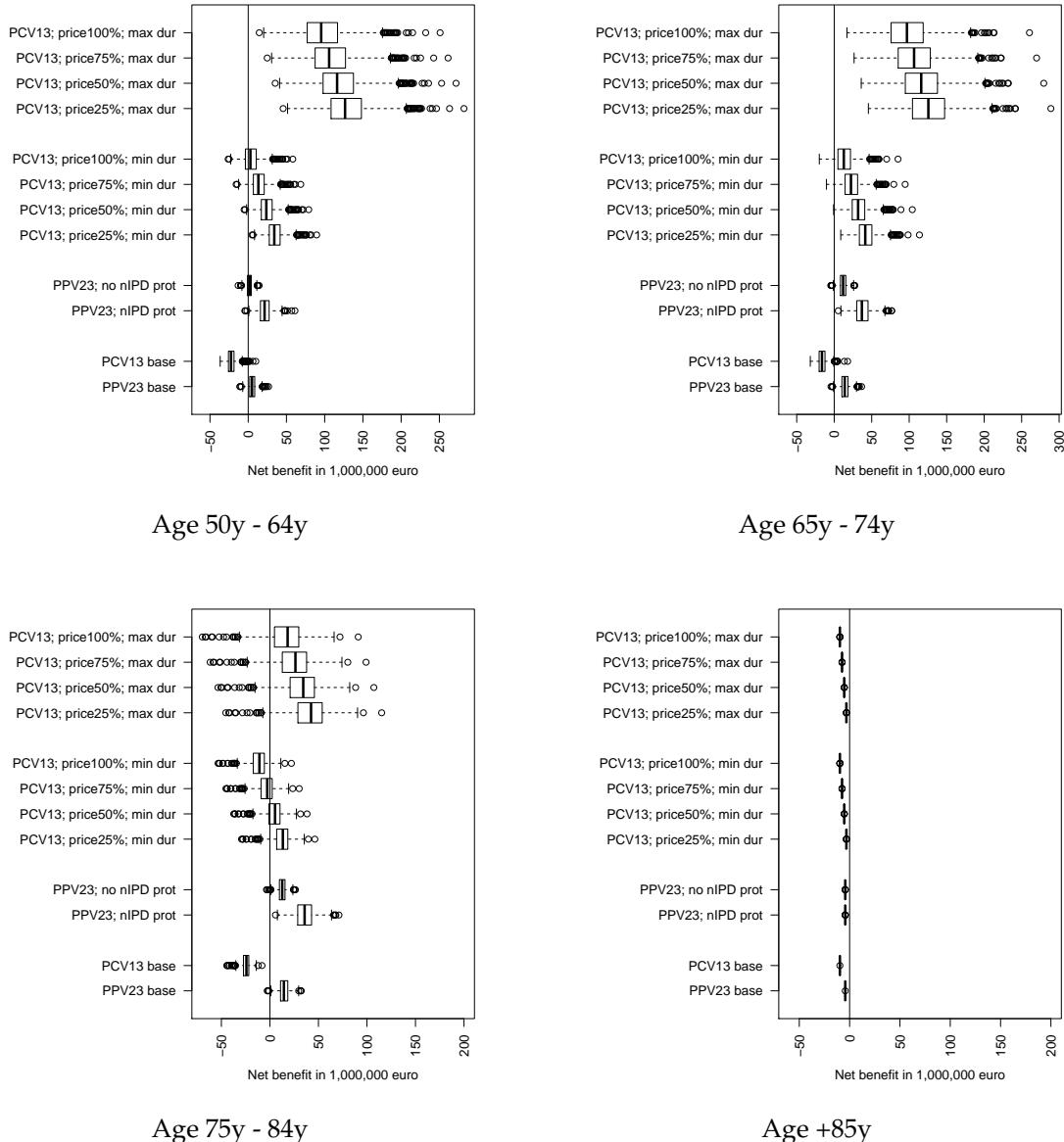
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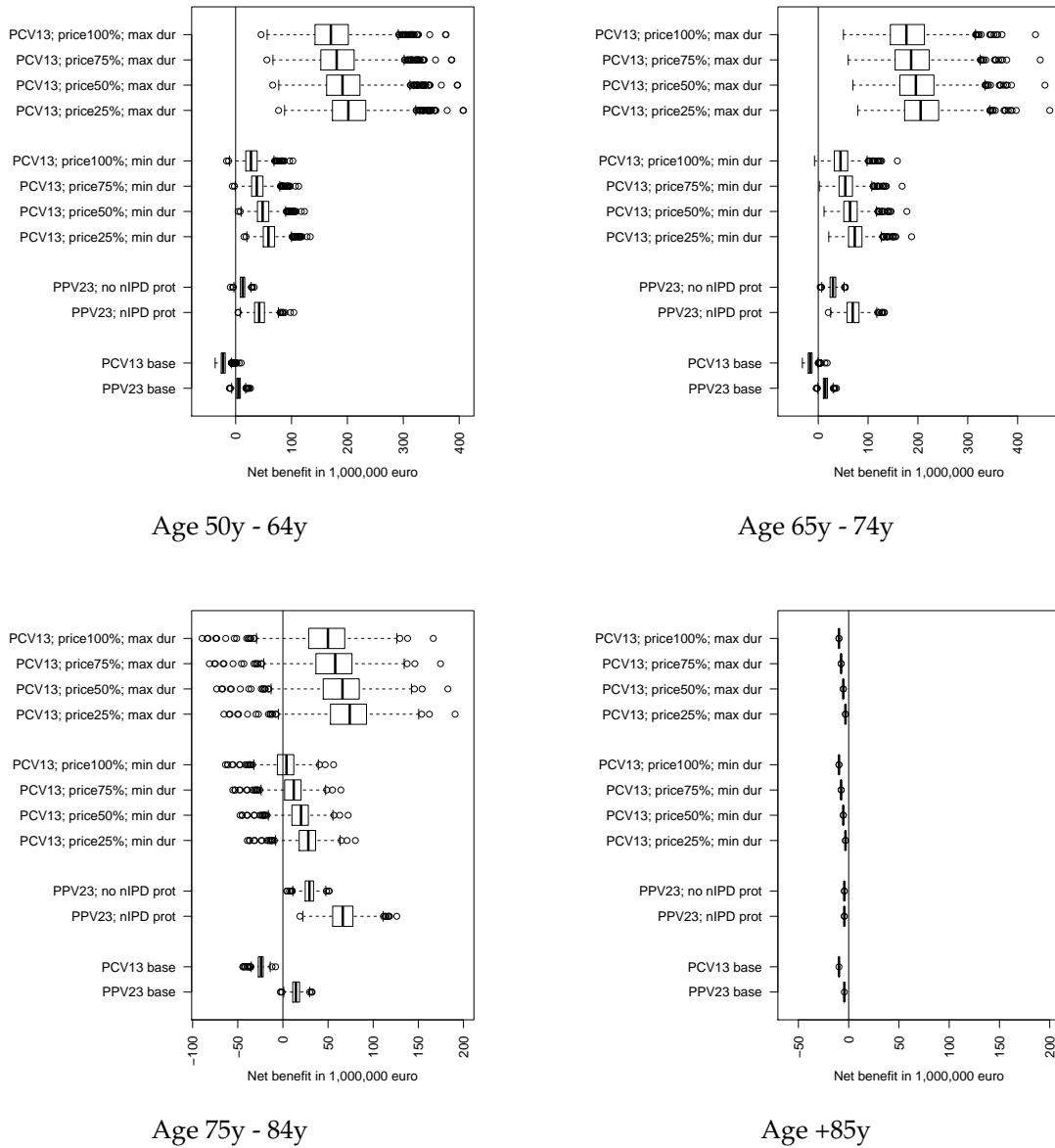
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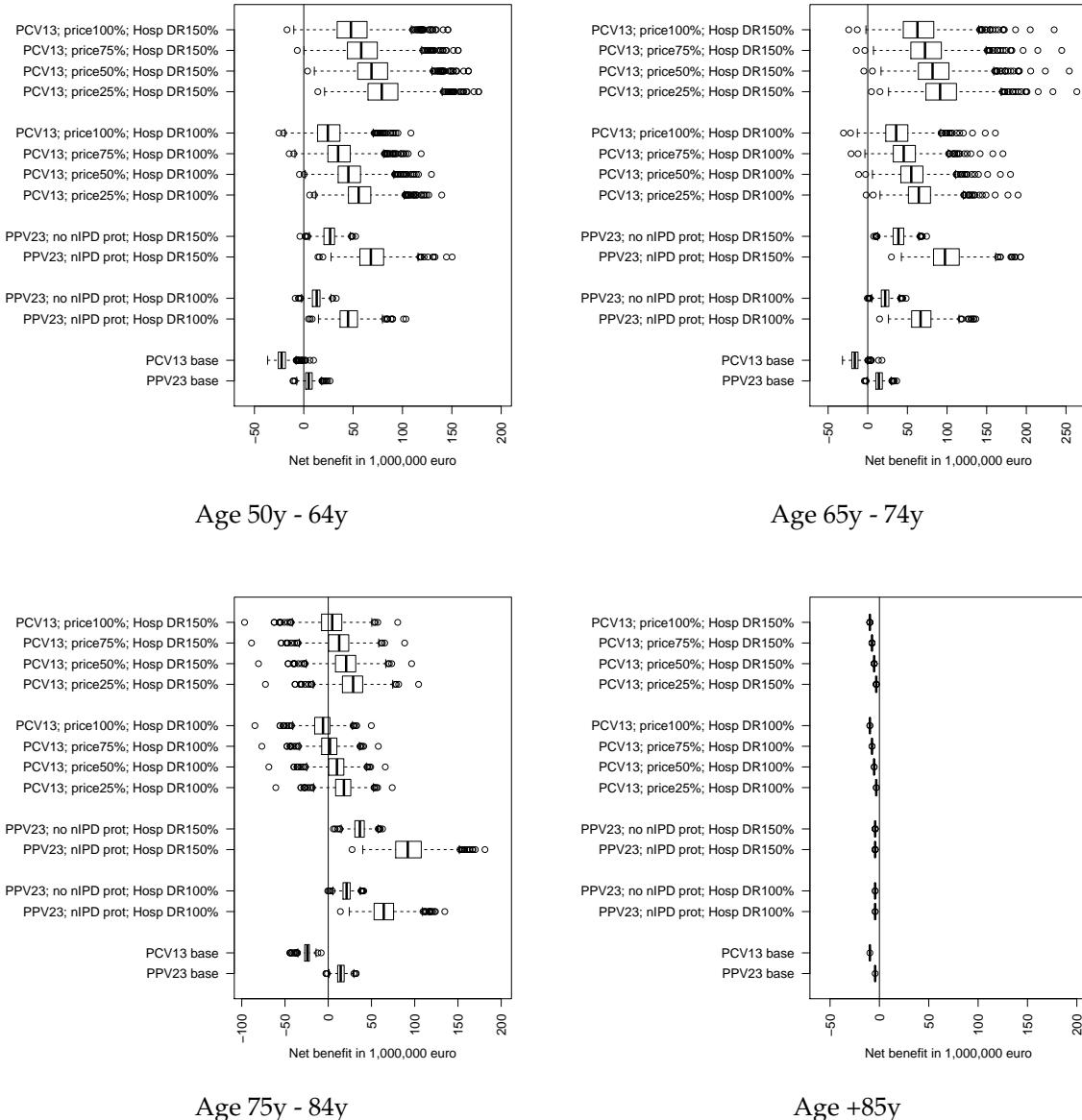
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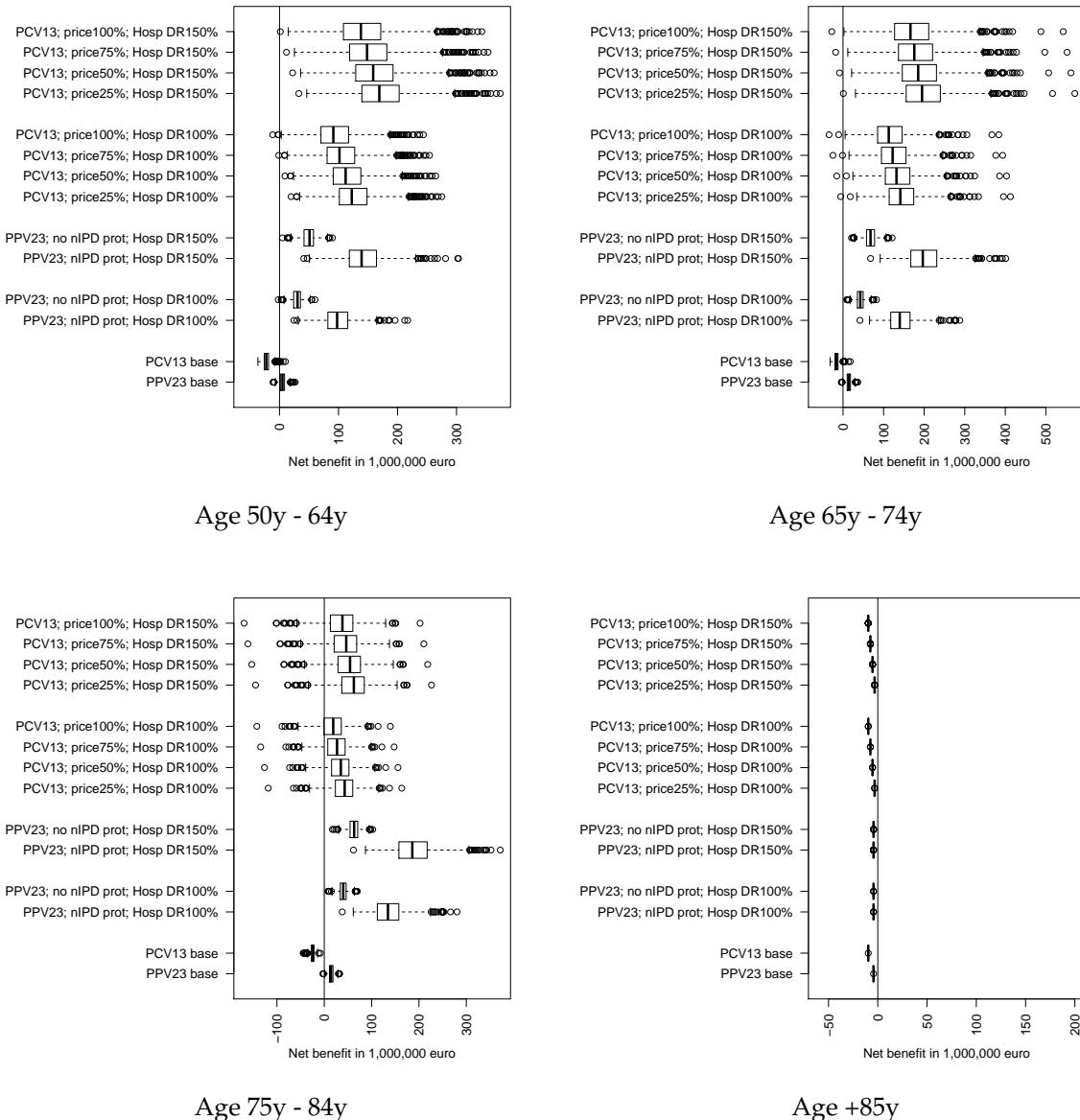
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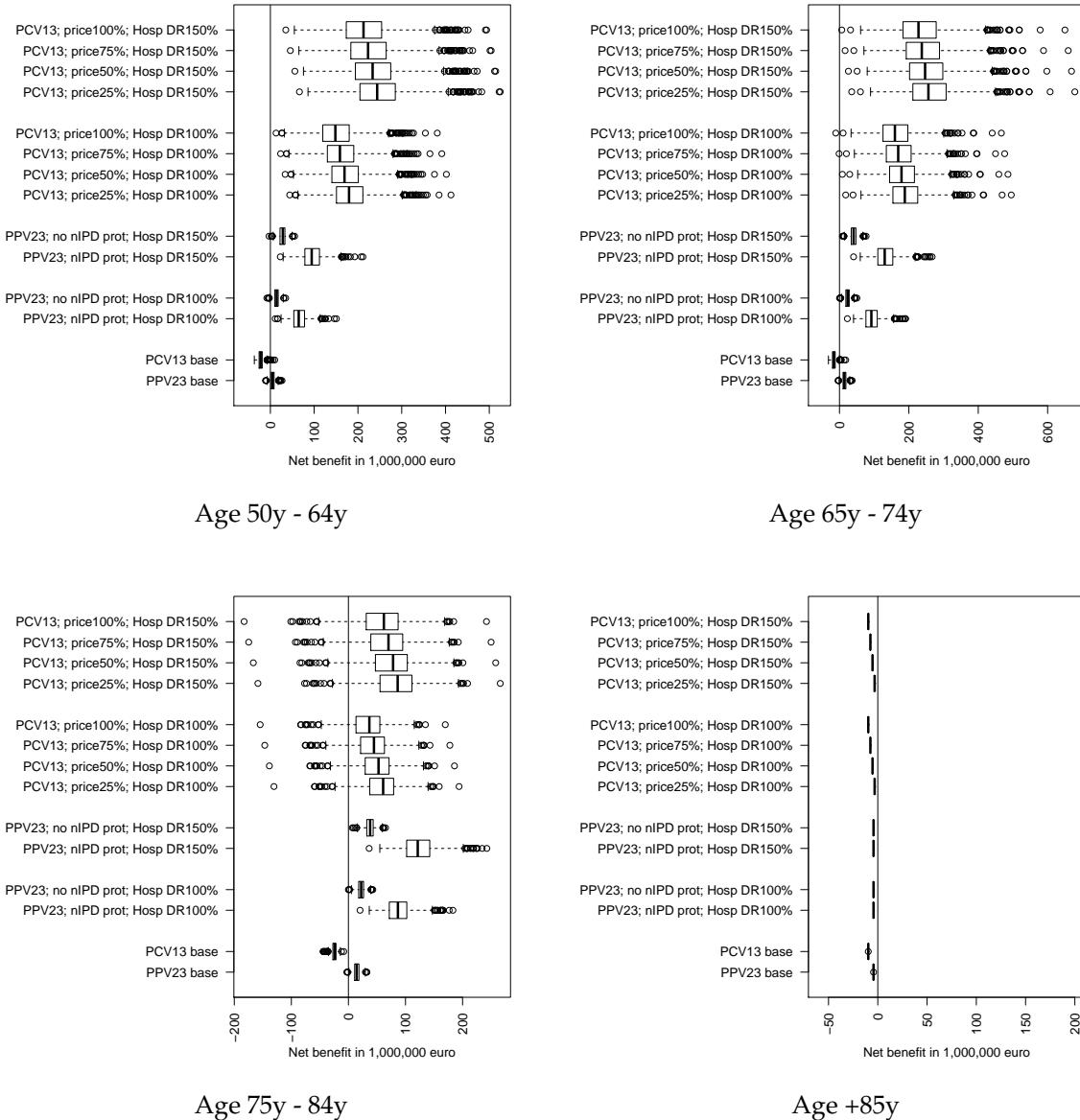
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