

# Socioeconomic status and economic burden of pertussis in adults: Post-hoc analyses of a retrospective database study in England

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Digital poster  
Supplemental data



Narrated summary



## Aims

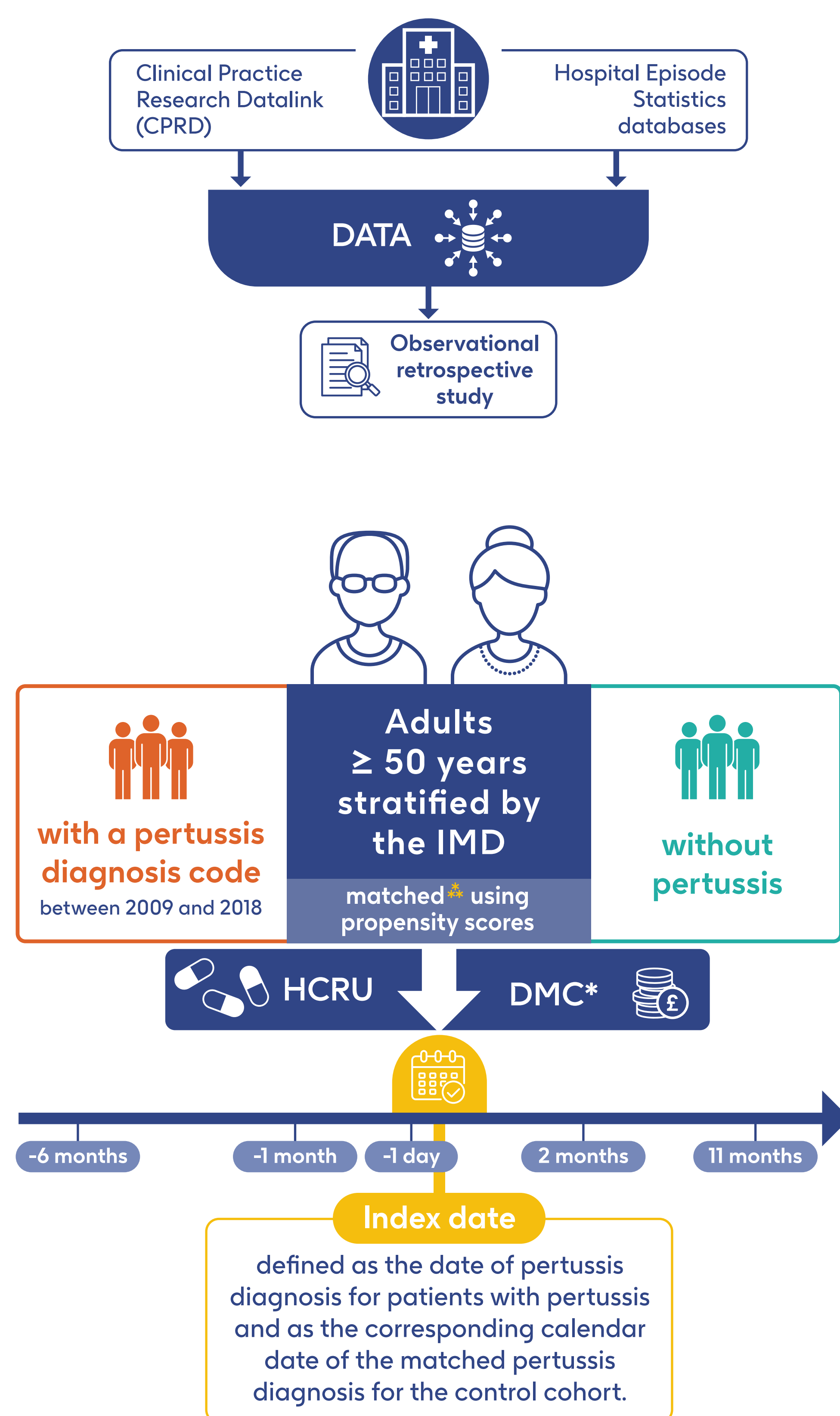


The objective is to estimate the economic burden of pertussis among ≥50-years-of-age in England, from 2009 to 2018, stratified by the index of multiple deprivation (IMD).\*

50+

2009 → 2018

## Methods



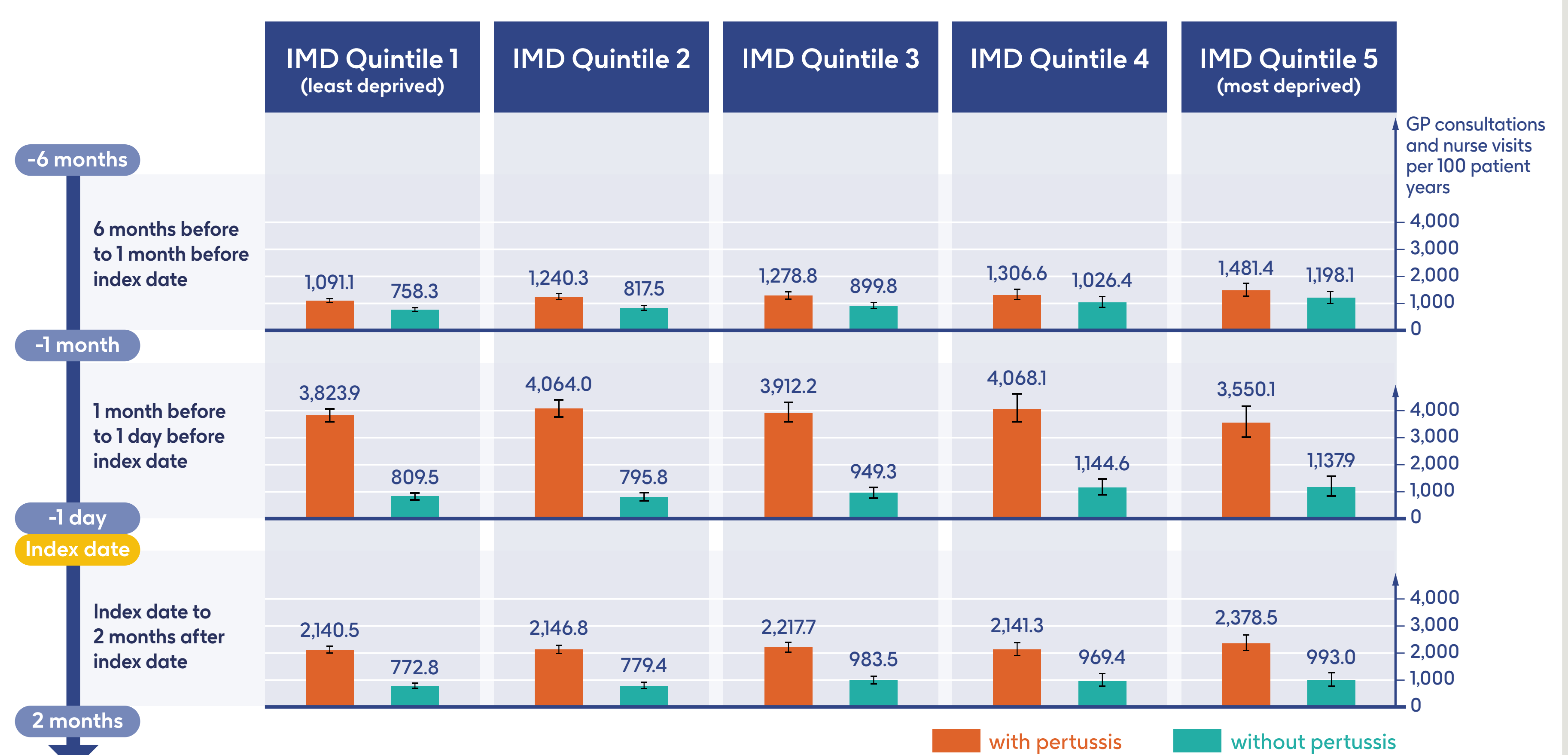
\* A generalised linear model (GLM) compared DMC from 1 month before to 11 months after pertussis diagnosis. Costs were calculated by adjusting for inflation.

## Results

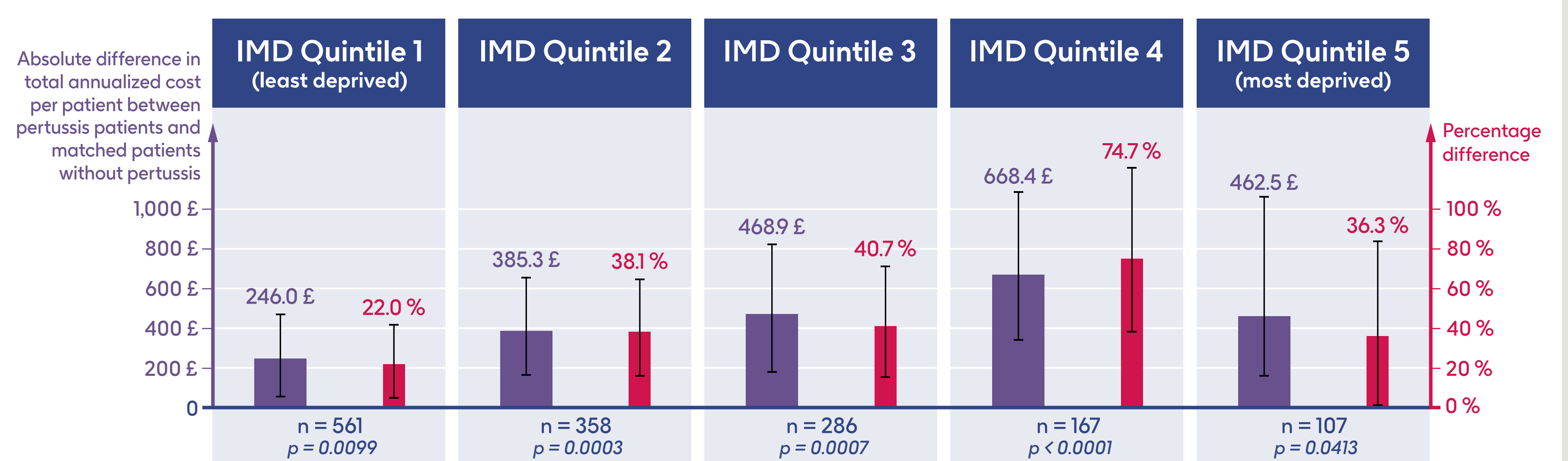
- All pertussis patients were matched to controls in each IMD quintile except for 1 patient in IMD quintile 5.
- The baseline characteristics were well balanced across all quintiles after propensity score matching (SMD <0.2 for all characteristics).
- The figures below compare HCRU and annualized cost per patient between the pertussis group (n=1,479) and the matched control cohort (n=1,479).



1. HCRU was higher in the pertussis groups compared to the matched control cohort in primary care settings between 6 months before the index date, up to 2 months after



2. The total annualized cost\* per patient (calculated using GLM) tended to increase with IMD quintile from 1 month prior to 11 months after index date



Black bars: represent 95% confidence interval;  
p-values: derived using the Wilcoxon rank-sum test to compare annualized medical costs between the 2 groups

## Background

- The ageing global population may increase the health and economic burden of pertussis due to the increased risk of disease among adults ≥50-years-of-age.<sup>1-3</sup>
- Besides age, socio-economic status is a known determinant of access to healthcare.<sup>4</sup> It is important for understanding the impact of health inequity on a specific disease.<sup>5</sup>
- The impact of socio-economic status on the economic burden of pertussis remains unexplored.

## Conclusions



- Economic burden of pertussis was higher among the pertussis cohort compared to non-pertussis cohort within all IMD categories.



- Economic burden of pertussis tended to increase with declining socioeconomic status (from least to most deprived).



- Additional studies are required to understand the link between IMD status and pertussis economic burden.

### Abbreviations

DMC: direct medical costs;  
GP: general practitioner;  
HCRU: healthcare resource utilisation;  
n: total number of patients in each cohort;  
SMD: standardized mean difference.

### References

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### Disclosures

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