

INCIDENCE OF PERTUSSIS IN OLDER ADULTS IN ENGLAND AND THE UNITED KINGDOM: A LARGE, RETROSPECTIVE DATABASE ANALYSIS

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BACKGROUND

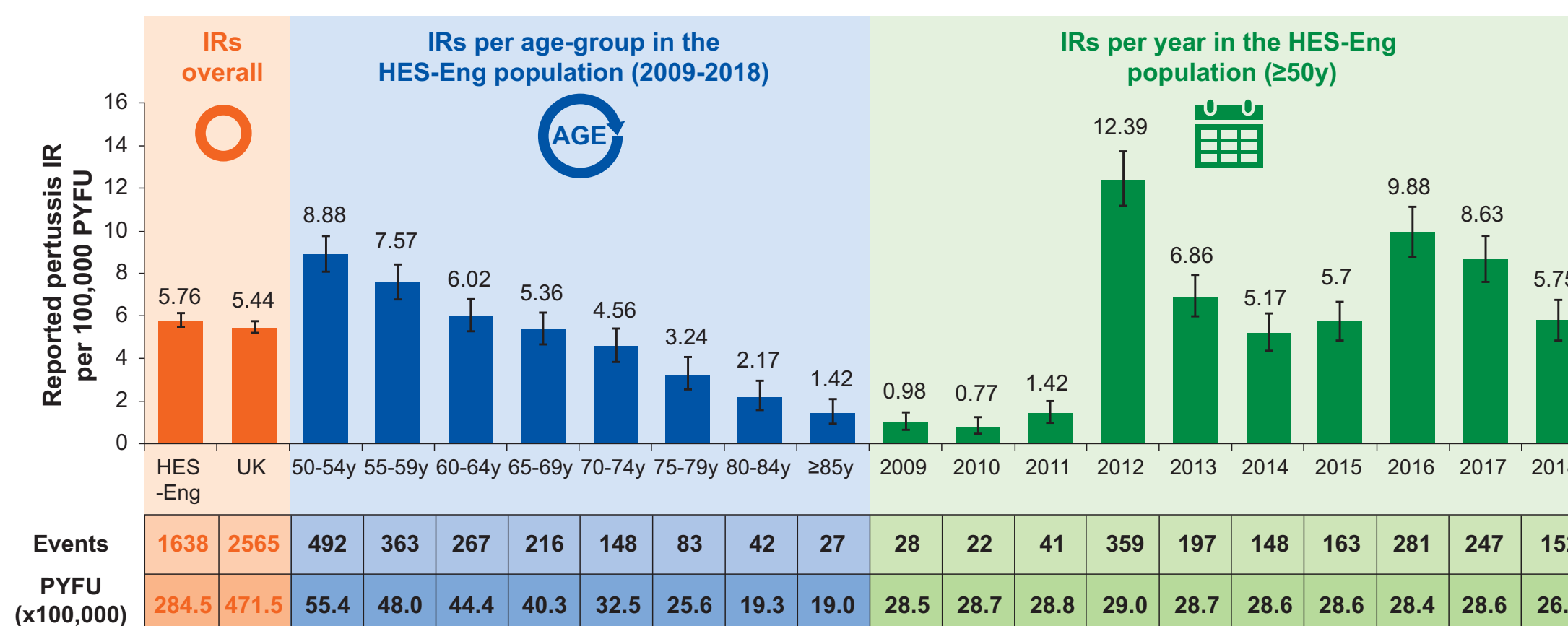
- ➔ Pertussis, also known as whooping cough, affects people of all ages and may lead to severe complications in adults.^{1, 2}
- ➔ Despite universal immunization programs in the pediatric population, adults remain susceptible to pertussis.³
- ➔ Pertussis immunity, whether from natural infection or vaccination, is not lifelong. Therefore decennial booster doses are recommended in adults to ensure ongoing protection.³
- ➔ This study evaluates the incidence of reported pertussis in adults aged ≥50 years in the United Kingdom (UK) between 2009 and 2018.

METHODS

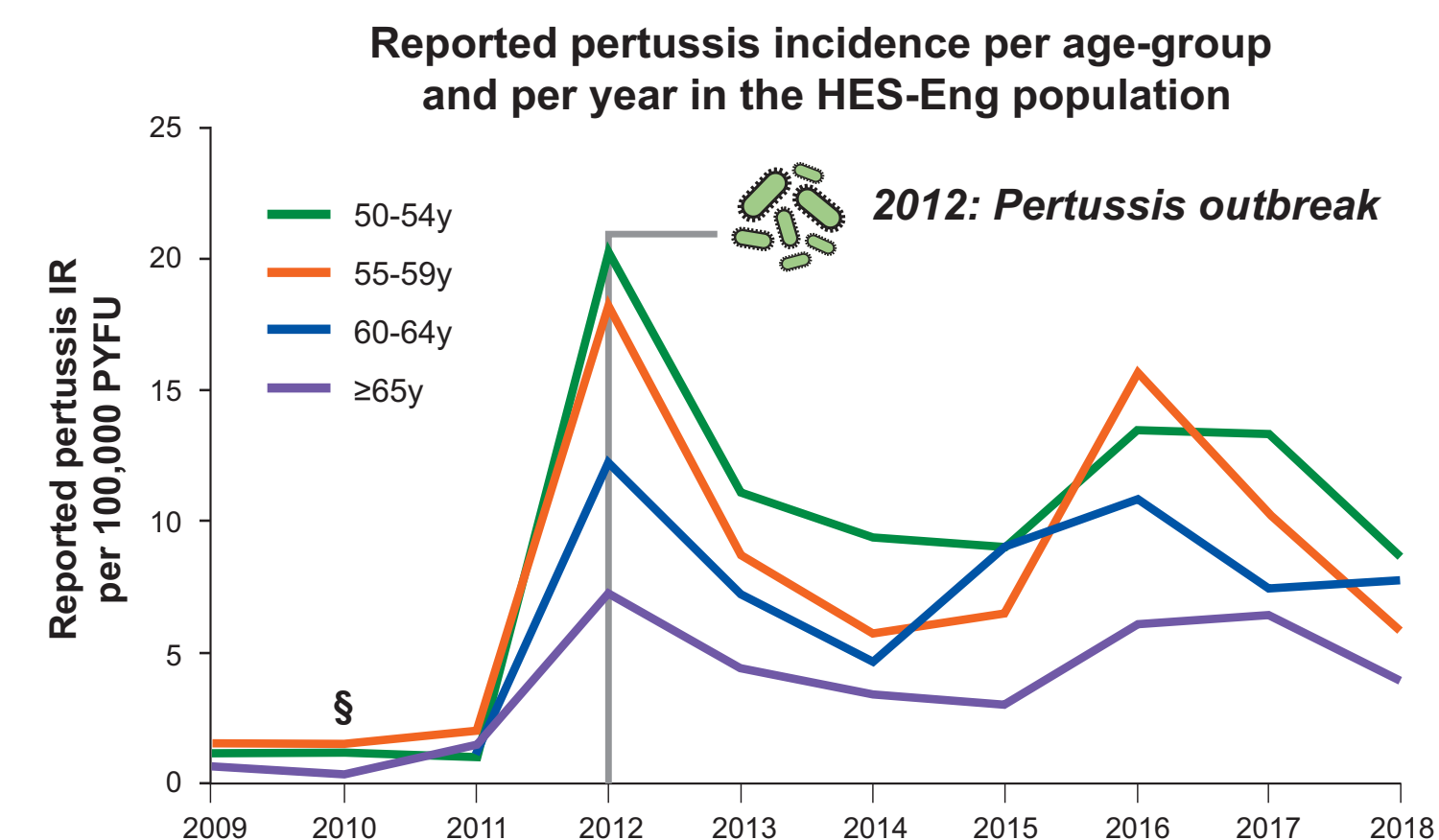
- ➔ Observational, retrospective database analysis using the UK Clinical Practice Research Datalink GOLD and Aurum primary care databases, and Hospital Episode Statistics database for English subjects (HES-Eng) when available.
- ➔ Pertussis cases were identified using diagnostic codes and incidence rates (IRs) were calculated overall, by year and by age group.

RESULTS

Reported pertussis incidence follows a cyclic pattern and decreases with age



HES-Eng: Hospital Episode Statistics – England; IR: incidence rate; PYFU: person-year follow-up; y: year. Incidence rates are calculated as events per 100,000 PYFU. Error bars represent the 95% confidence interval. §In 2010, for the 60-64 years age group, IR cannot be estimated because the number of events is too low (<5).



CONCLUSIONS

- ➔ IRs restricted to HES-Eng subjects were similar to the ones obtained from the CPRD-UK population.
- ➔ Reported pertussis IRs were highest in the 50-64 years old age-groups; future research should evaluate the extent of under-diagnosis in older adults on actual IRs.
- ➔ Incidence of reported pertussis varied between 0.77 and 12.39 events per 100,000 person-years of follow-up, demonstrating a cyclic pattern with a peak in 2012, a known outbreak of pertussis.⁴ Rates continued to be higher after 2012 compared to before.
- ➔ Pertussis has not been fully controlled in older adults in the UK.



- All age groups ≥50 years old are at risk of pertussis.
- Pertussis follows a cyclic pattern, irrespective of age.
- Prevention strategies should also focus on this age group.

Disclaimer: This study is based in part on data from the Clinical Practice Research Datalink obtained under license from the UK Medicines and Healthcare products Regulatory Agency. However, the interpretation and conclusions contained in this report are those of the authors alone.

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