EFFECTIVENESS OF A GROUP B OMV MENINGOCOCCAL VACCINE IN PREVENTING HOSPITALISATION FROM GONORRHOEA IN NEW ZEALAND – COHORT STUDY

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Disclosures:

- Study funded by Novartis Vaccines & Diagnostics AG (a member of the GlaxoSmithKline group)
- HPH has consulted for GSK, Pfizer, and Merck but not personally received honoraria
- SB has consulted for GSK

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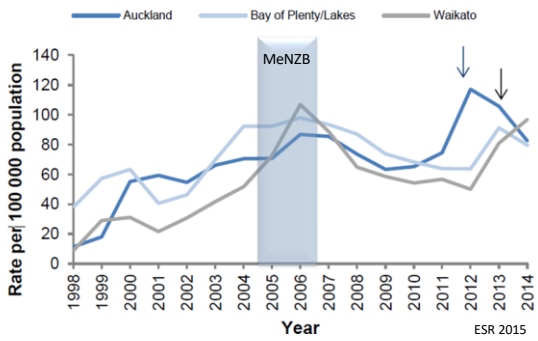
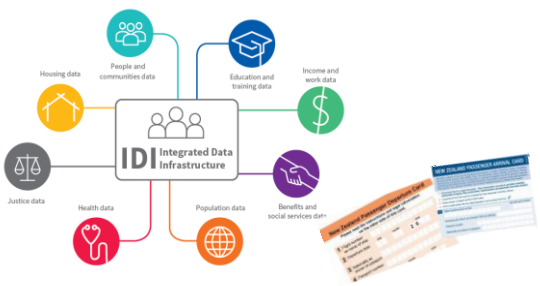
BACKGROUND/AIMS & METHODS:



ESR 2015

- Gonorrhoea is a disease in desperate want of a vaccine
- In 2016 we found that a tailor made group B meningococcal vaccine (MeNZB) used in NZ 2004-8 was ~31% protective against gonorrhoea diagnosis in a case-control study
- We wanted to know if the vaccine also prevented Gn hospitalisations

(Petousis-Harris et al *Lancet* 2017)



- Cohort study of gonorrhea associated hospitalisations
- Population NZrs eligible for the MeNZB vaccine who were born 1984-1999
- Excluded included immigrated, inactive, died
- Cases were hospitalized with a gonorrhea diagnosis only
- Analysis included sensitivity with less specific outcome codes
- Cox's prop hazards models with Firth correction for rare outcomes
- VE 1-HR

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RESULTS:

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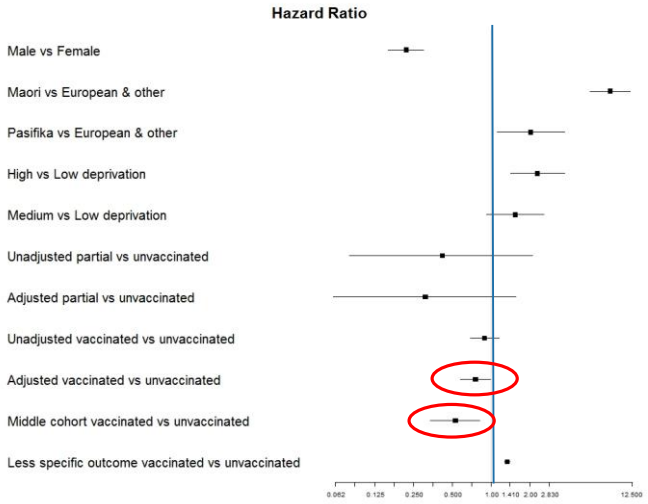
The MeNZB vaccine was effective at preventing gonorrhoea related hospitalisations



- 1,600,278 births
- 935,496 eligible for study
- 8610 hospitalised
- 261 Gonorrhoea only

- **VE 24%** (95% CI 1-42%) total cohort
- **VE 47%** (95% CI 18-66%) subgroup vaccinated as young teens

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CONCLUSIONS/IMPLICATIONS:

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- We found a protective effect of the MeNZB vaccine against hospitalisation with gonorrhea
- This provides further evidence (together with Cuba, Canada, and our previous findings) that a vaccine effective against gonorrhea is not only feasible but has likely already been used
- We need to unravel the magic in the Nm OMV vaccines through basic science
- We need to further evaluate the existing OMV-containing vaccines clinically through:
  - Observational studies
  - Clinical studies
- Even a moderately effective vaccine, well deployed, could run a truck through rising gonorrhea

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Thanks

The results in this presentation are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand. The opinions, findings, recommendations, and conclusions expressed in this paper are those of the author, not Statistics NZ. Access to the anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation, and the results in this paper have been made confidential to protect these groups from identification. Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.