

National Immunisation Committee



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NIC Agenda

- childhood pneumococcal program
- older Australians pneumococcal program
- AEFI
- NIPII evaluation
- NCIRS local area coverage analysis
- cold chain
- ACIR

NIPII Vaccine coverage (NHS)

		50-64 yrs	65+ yrs	50+ yrs
Influenza	Ind	47%	71%	51%
	Non-Ind	26%	75%	47%
Pneumo	Ind	20%	47%	25%
	Non-Ind	3%	28%	14%

NIPII evaluation

- data incomplete
- National Indigenous health survey in 2006 and every 6 years
- higher rates of IPD in all age groups
- high rates in 15-49 year olds – highest difference in Ind vs non-Ind
- data insufficient to show effect
- ?local registers / national register

Conjugate pneumococcal vaccine in Australia - Prevenar™

- 7 polysaccharide capsular antigens conjugated to a protein carrier - CRM197 - diphtheria toxoid
- 4, 6B, 9V, 14, 18C, 19F, 23F
- paediatric serotypes, also those with antibiotic resistance
- ~80% of invasive isolates in children

Kaiser Permanente trial

- double blind RCT of Wyeth Lederle 7 valent conjugate pneumococcal vaccine vs control (mening C conjugate vaccine)
- 37,868 infants enrolled over 3 years
- 3 dose primary schedule at 2,4 and 6 months and a booster at 12-15 months

Kaiser Permanente trial

- primary endpoint - efficacy against IPD caused by vaccine serotypes
- secondary endpoints were:
 - * all IPD
 - * otitis media outcomes
 - * pneumonia outcomes
 - * immunogenicity in a subset

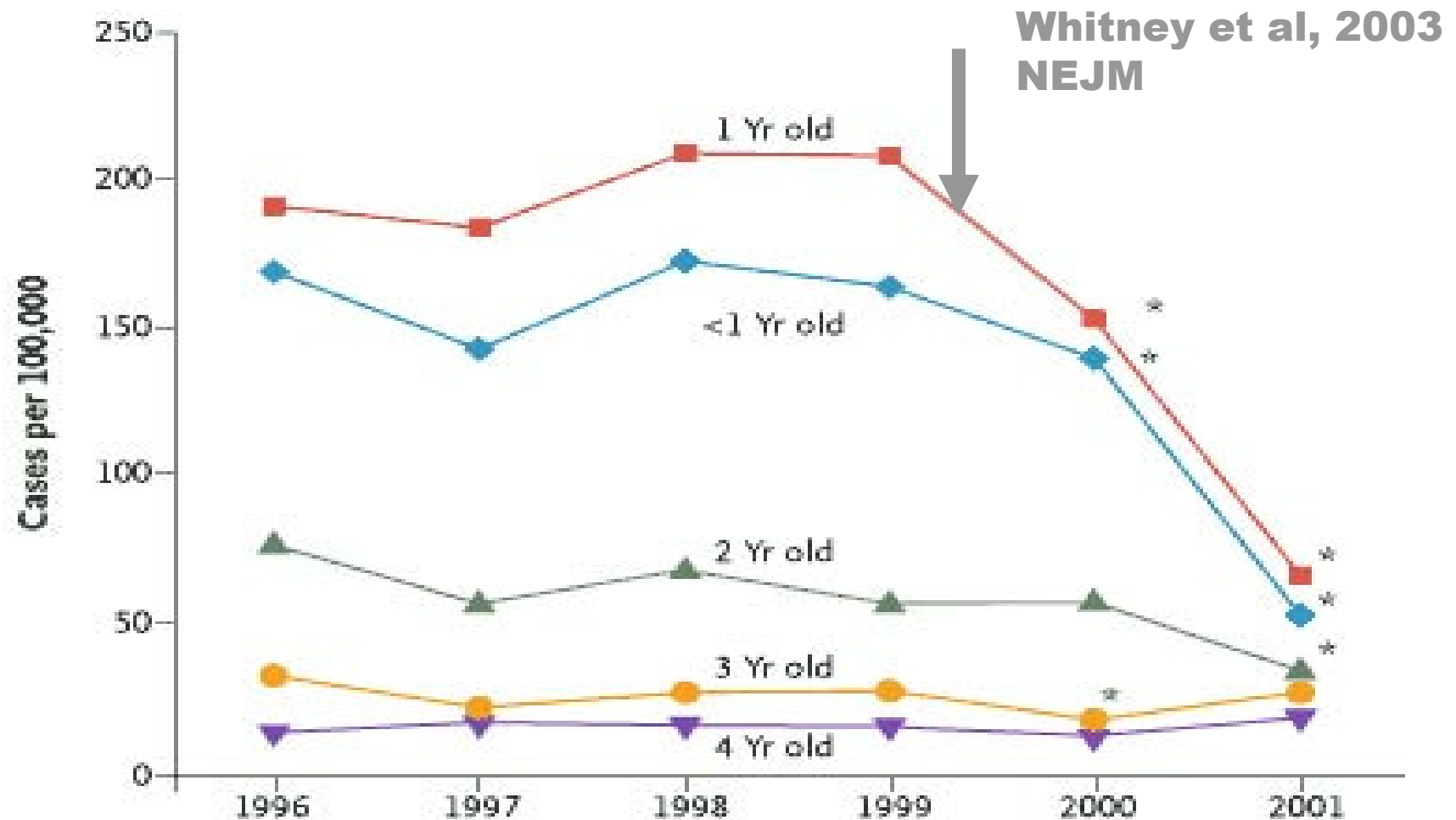
Kaiser - IPD results

	Cases Control:Pn	Efficacy (95% CI)
Vaccine serotypes (per protocol)	39:1	97.4% (82.7%-99.9%)
Vaccine serotypes (intent-to-treat)	49:3	93.9% (79.6%-98.5%)
All serotypes	55:6	89.1 (73.7-95.8)

Kaiser - otitis media results

	Per protocol	Intent to treat
OM Visits	8.9%	7.8%
OM Episodes	7.0%	6.4%
Frequent OM (3/4)	9.3%	9.1%
Frequent OM (5/6)	22.8%	12.3%
Grommets	20.1%	20.3%

Invasive Disease in the USA since Vaccine Introduction



Invasive Disease in the USA since Vaccine Introduction - < 2 years age

Serotype	Average for 1998 and 1999		2001		% Change in Estimated Rate (95% CI) [§]	P Value [§]
	No. of Cases	Estimated Rate [†] <i>cases/100,000</i>	No. of Cases	Estimated Rate [†] <i>cases/100,000</i>		
All vaccine serotypes	563.5	156.1	124	33.6	-78 (-82 to -74)	<0.001
4	52	14.4	9	2.4	-83 (-91 to -67)	<0.001
6B	75	20.8	27	7.3	-65 (-76 to -48)	<0.001
9V	31.5	8.7	12	3.3	-63 (-79 to -35)	<0.001
14	228.5	63.3	39	10.6	-83 (-88 to -77)	<0.001
18C	51.5	14.3	12	3.3	-77 (-87 to -61)	<0.001
19F	78.5	21.8	14	3.8	-83 (-90 to -72)	<0.001
23F	46.5	12.9	11	3.0	-77 (-87 to -59)	<0.001

**Whitney et al, 2003
NEJM**

Invasive Disease in the USA since Vaccine Introduction - < 2 years age

All vaccine-related serotypes¶	70.5	19.6	36	9.8	-50 (-65 to -31)	<0.001
6A	32	8.9	18	4.9	-45 (-66 to -12)	0.02
9A	10.5	2.9	3	0.8	-72 (-89 to -11)	0.04
19A	20	5.5	12	3.3	-40 (-68 to +5)	0.09

**Whitney et al, 2003
NEJM**

Invasive Disease in the USA since Vaccine Introduction - < 2years age

All nonvaccine serotypes	44.5	12.4	58	15.7	+27 (-6 to +73)	0.14
1	2.5	0.7	1	0.3	-57 (-96 to +169)	0.43
3	2.5	0.7	4	1.1	+57 (-51 to +431)	0.53
5	0	0	1	0.3	Not defined	0.34
7F	5.5	1.5	6	1.6	+7 (-58 to +163)	0.89
12F	6.5	1.8	7	1.9	+6 (-56 to +145)	0.89

**Whitney et al, 2003
NEJM**

Rates of Invasive Pneumococcal Disease among Persons at Least Five Years Old, According to Age Group and Year

