

Missed Opportunities to Vaccinate- are we guilty?



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Background to Study

- Concerns regarding children in contact with infectious diseases in school setting
- Concerns re vaccine safety

Concerns- Parental

- That MMR is linked to autism or inflammatory bowel disease
- That multiple vaccines can overwhelm/weaken immune system (Offit et al, 2002)
- With increasing numbers of recommended vaccines, children are exposed to fewer antigens today than in the past (Offit et al, 2002)

MMR and egg allergy

- *Khakoo and Lack (2000) review-*
- 52 studies 1966-99
- Vaccine contains small amounts of egg protein, ovalbumin
- MMR2 also contains 14.4mg gelatin and 25ug neomycin which are known to cause severe allergic reactions *

MMR and egg allergy

- Because of co-existing possible reactions to gelatin or neomycin, predicting children who are at risk of an allergic reaction is difficult (*Khakoo and Lack, 2000*)
- Children who have an egg allergy and co-existing asthma are at risk for anaphylaxis (*Fasano et al, 1992; Sampson et al, 1992*)
- These children should be vaccinated in the hospital setting

Study Aims and Objectives

1. To determine the knowledge of vaccine contraindications among health professionals
2. To determine health professionals' views on barriers to immunisation
3. To determine vaccine information resources available to health professionals

Study Methods

- ❑ Randomised sample of 255 health professionals currently involved in vaccination either through health promotion or direct vaccination
- ❑ Area medical officers (n=24)
- ❑ Public health nurses (n=106)
- ❑ GPs (n= 85)
- ❑ Practice nurses (n= 40)

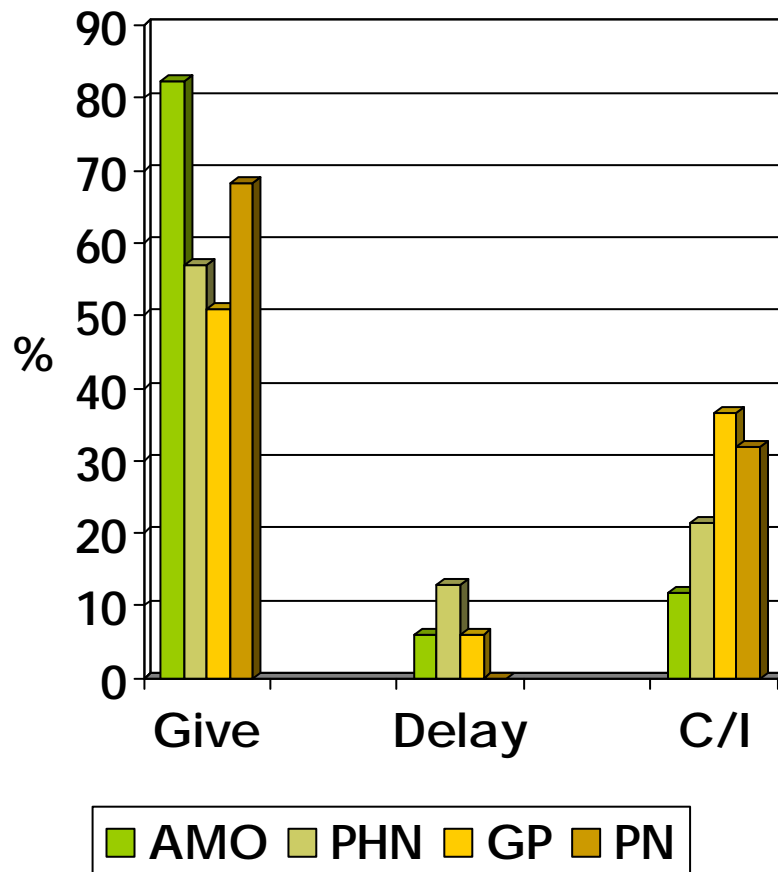
Study Methods

- **Quantitative**
- Postal questionnaire- 2 parts
- Part 1
 - demographics
 - satisfaction with current knowledge
 - information resources available
- Part 2
 - 39 case scenarios for acellular pertussis, MMR and BCG

Results

- Questionnaires were sent out to 255 health professionals
- 175 responded (68.6%)
- A further 17 were excluded giving a total of 158/255 included in study (61.9%)

MMR- Child with egg allergy

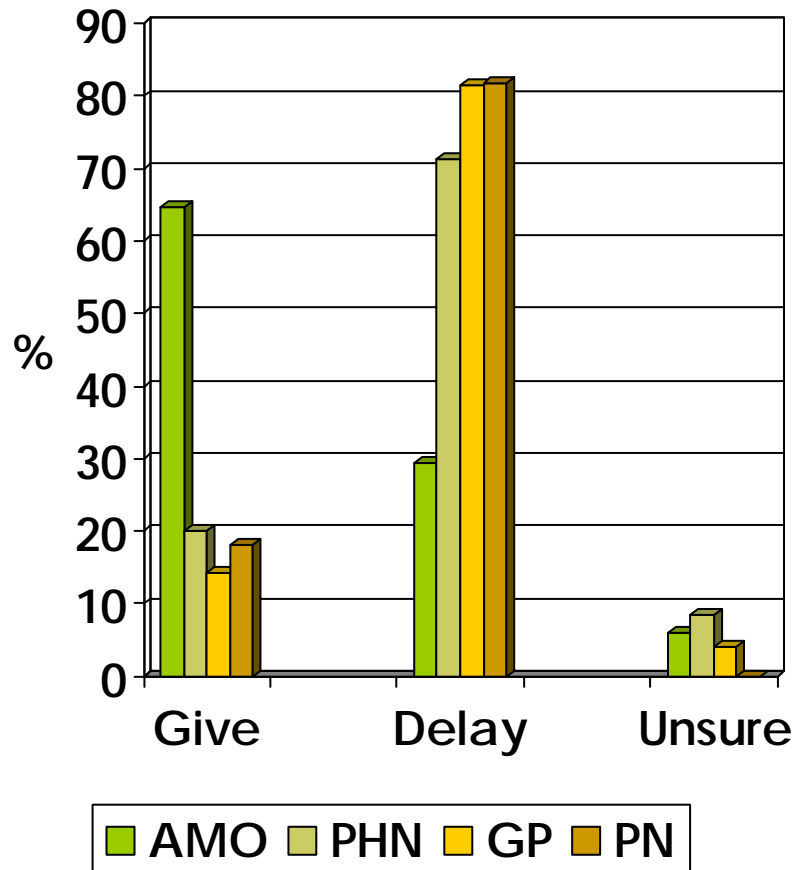


- 59.5% correctly identified that egg allergy in a child is not a contraindication
- AMOs were significantly more knowledgeable than GPs ($p = 0.042$)
- No significant difference between those who were satisfied with their knowledge of vaccine contraindications and those who were not

MMR- Chicken Pox

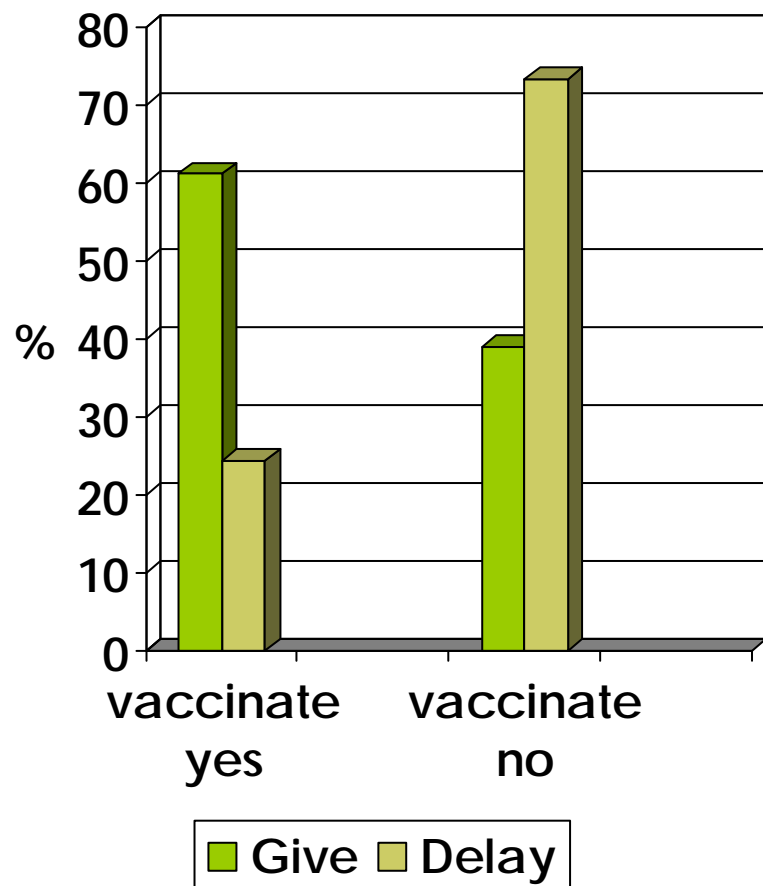
- ❑ 93% of professionals would delay vaccination
- ❑ No significant difference between GPs or practice nurses
- ❑ AMOs were significantly more likely to delay vaccination compared with PHNs ($p=0.0283$)
- ❑ MMR is not a contraindication to vaccinating a child who has Varicella.
- ❑ C/I only with acute febrile illness

MMR- Child on antibiotics



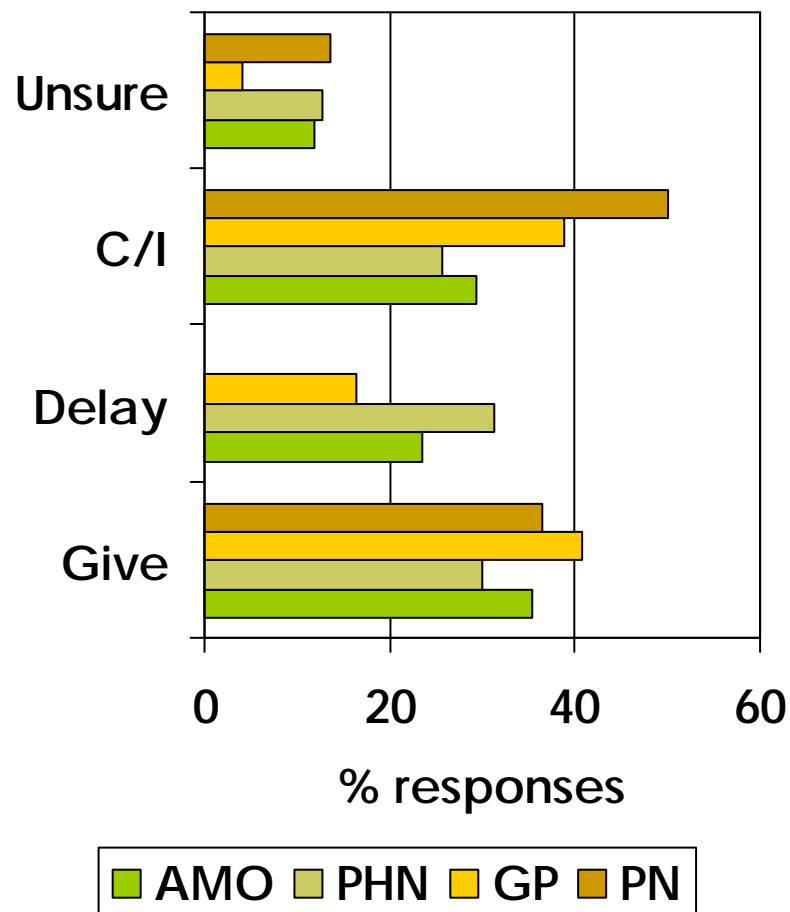
- 71.5% of professionals would not vaccinate
- AMOs were significantly more likely to vaccinate than GPs ($p=0.00005$; $OR=0.09$)

MMR – Respiratory Infection



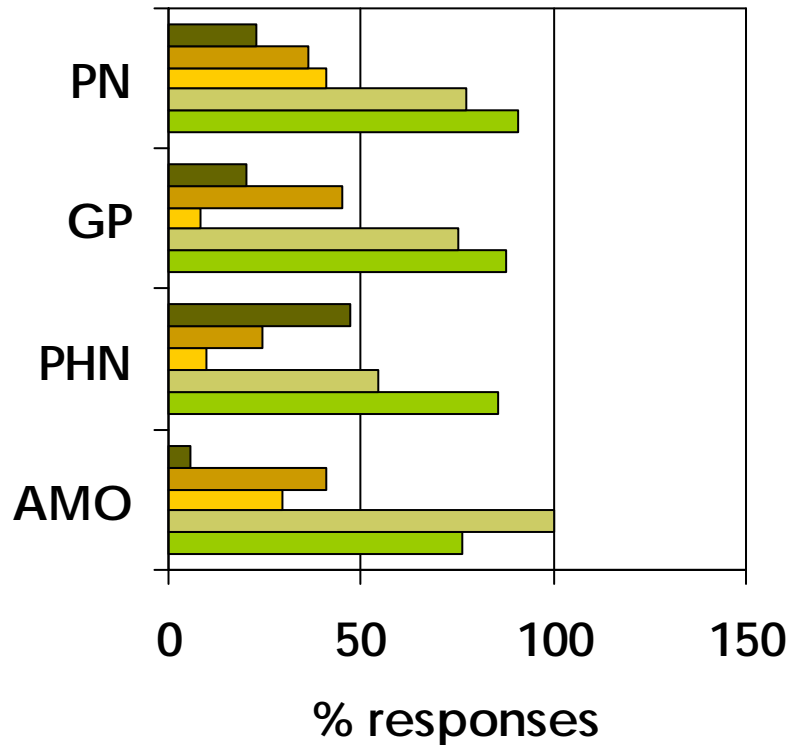
- **PHNs more likely to advise** deferral compared with AMO ($p= 0.00070$)
- GP more likely to defer vaccination compared with AMO ($p=0.030$)
- 77.3% of practice nurses would give MMR
- 83.6% of GPs involved in vaccination- however those who are not are more likely to defer vaccination ($p= 0.00627$; OR= 8.10)

Pertussis- Screaming > 3 hours



- Those working part time were significantly more likely to be incorrect in their responses compared with full time professionals (p= 0.030; OR= 2.53)
- Those with access to the Immunisation Guidelines were also more likely to be correct in their responses (p= 0.031; OR=2.37)
- 34.8% (55/158) were correct in identifying that this scenario is not a contra-indication but rather a precaution

Information Resources used



- AMOs unhappy with level of information also likely to be dissatisfied with knowledge ($p=0.384$)
- 16.5% never use the Immunisation Guidelines and are predominantly PHNs

Conclusions

- ❑ Research clearly demonstrates a lack of knowledge particularly in relation to egg allergy, minor illness and antibiotic therapy
- ❑ Those professionals not involved in vaccination are more likely to advocate deferral
- ❑ Concern regarding incorrect advice given to mothers on initial contact with PHNs and non-vaccinating GPs

Recommendations

- ❑ Ongoing education for health professionals
- ❑ Recruitment of an Immunisation Educator
- ❑ Easy to use pocket manual
- ❑ Standardisation of consent forms
- ❑ Enhanced communication with parents
- ❑ Research into information needs of urban and rural health professionals