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## Parents' beliefs about vaccination: the continuing propagation of false contraindications

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Low immunisation rates in England remain a cause for concern. The introduction of the measles, mumps, and rubella vaccine has renewed optimism that the proposed target of 90% uptake of vaccination could be achieved by 1990,<sup>1</sup> but studies in the early 1980s suggested that this target is unrealistic. They showed that parents and health care professionals had a poor understanding of the diseases concerned and commonly believed in mythical contraindications to vaccination. Our study aimed to reassess the importance of these obstacles to vaccination.

### Subjects, methods, and results

The study was conducted at this hospital during six weeks from December 1986 to January 1987. Children aged between 3 months and 4 years who were admitted to the communicable diseases unit and two general paediatric wards were entered into the study. Their immunisation history was sought from one or both parents. If the child had not been fully vaccinated at the correct times the parents were asked their reasons for the failure or delay. If they had been advised against vaccination they were asked for the source of advice and the reasons given. We defined the advice given as appropriate or otherwise according to the Department of Health and Social Security's guidelines of 1984.

During the study period 184 children were admitted, of whom 173 (94%) entered the study. A history of immunisation against measles was taken for the

121 children over 16 months old. No differences were found in any of the study variables between the groups admitted to the communicable diseases unit and the paediatric wards. Uptake of immunisation (diphtheria, tetanus, and polio 89% (154/173); pertussis 64% (111/173); measles 64% (77/121)) was similar to national figures<sup>2</sup> and figures for Wandsworth Health Authority during 1982-6. Altogether 106 children were incompletely vaccinated, and 91 of these had missed vaccinations for inappropriate reasons: in more than a third (39) the reason was parental objection (13) or apathy (26), but two false contraindications—temporary intercurrent infection and a history of atopy—accounted for a further third. Inappropriate advice was equally likely to have come from general practitioners, health visitors, and health clinics.

### Comment

In the early 1980s several studies examined the reasons for the continuing failure to improve uptake of vaccination.<sup>3,5</sup> Like those studies, ours highlighted serious deficiencies on the part of health care professionals in explaining and promoting immunisation. Most of the parents (96%) reported that they had received advice from a health care professional before deciding about their child's vaccination, and in only 28% of cases was failure to vaccinate the child due to parental inertia. In the remainder it was due to inappropriate advice or parental conviction not refuted by health care professionals. These findings support those of Blair *et al*,<sup>5</sup> who concluded that previous consultation with a health care professional did not significantly correlate with a parent's decision on vaccination.

Improving vaccination uptake is important, but we found that many parents, and apparently some doctors and health visitors, still viewed immunisation as a potential hazard that should be avoided if some excuse could be found. Our most important finding was that of all the cases in which the child had missed vaccinations, 38% could be attributed to either temporary intercurrent infection or atopy. This almost equalled the proportion accounted for by parental apathy and objection (42%). If these two misunderstandings had been specifically targeted uptake of more than 80% might have been achieved.

Much hope is being invested in the new measles, mumps, and rubella vaccine, but the obstacles to full vaccination highlighted in our study clearly reflect deeply entrenched attitudes. A more directed and sustained effort will be needed to change these if we are to improve uptake of vaccination.

Reasons given by parents for failure to immunise their children. Figures in parentheses are numbers of parents citing true contraindications according to Department of Health and Social Security's guidelines of 1984

	Pertussis	Measles	Diphtheria, tetanus, and polio	Total
Intercurrent illness:				
Febrile	4 (1)	5	1 (1)	18 (2)
Non-febrile	4	3	1	
Allergy:				
To egg	1	2 (2)		17 (2)
Atopy	7	5	2	
Convulsions:				
In child	(3)	2		8 (5)
In first degree relative	(2)	1		
In second degree relative	4	1		
Prematurity:				
Handicap	(3)	1		5 (3)
No handicap	3		1	
Natural infection	1	3		4
Previous reaction to vaccine	(2)			(2)
Immunosuppression		(1)		(1)
Apathy and objections	8	18	13	39
<b>Total</b>	<b>32 (11)</b>	<b>41 (3)</b>	<b>18 (1)</b>	<b>91 (15)</b>

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