

expressed that general practitioners might deliberately remove patients from their lists if they did not comply with offers of immunisation, placing target payments in jeopardy.¹⁵ There is no evidence for this in Grampian. Only nine patients aged 5 years or under were removed, compared with four for the previous year, and these were members of families who had been taken off the list for other reasons. Active monitoring and removal of untraced patients have had negligible effects on immunisation rates in Grampian region but this may not be the case elsewhere—for example, in some inner city areas with highly mobile populations.¹⁶

Our survey suggests that recent uptake rates in Grampian are not significantly influenced by size of group to be immunised and location of practice, but our findings may be atypical—Li and Taylor have recently observed that children resident in rural and suburban areas had greater uptakes than those in inner cities.¹⁷ A greater proportion of singlehanded practices did not attain 90% target levels, but this was not statistically significant for 5 year olds. This finding should be interpreted with caution in view of the small numbers involved. However, a simple assessment of immunisation rates masks the fact that some general practitioners and health visitors may have had to work much harder to obtain a good uptake “in the face of socioeconomic deprivation and parental uncertainty.”¹⁸ This is reinforced by Jones and Moon, who have suggested that crude uptake rates are inadequate performance indicators.¹⁹

The successful introduction of the accelerated primary immunisation schedule may have been assisted by the requirements of the 1990 contract. In turn, the schedule should operate to the benefit of realising target payments by allowing a longer period to catch up on defaulters.

General practitioners, health visitors, community health doctors, and administrative staff in Grampian have worked hard to improve immunisation rates. The effects of the 1990 contract seem encouraging, but outstanding anomalies—for example, non-payment

for immunisations given to children outside target groups²⁰—need to be remedied. Eliminating preventable infections by immunisation remains the prime objective and there is still much work to be done.

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Trends in hospital admission rates for asthma in children

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Rates of admission for childhood asthma in England and Wales have more than doubled since the mid-1970s,¹ but it is unclear whether this reflects an increase in the prevalence or severity of wheezing or changes in medical care.¹² The mortality from asthma in children has changed little over this period.² We report findings from two identical surveys of schoolchildren in south London during 1978 and 1991 which explore changes in the prevalence of disease and utilisation of services.

Subjects, methods, and results

In February 1978 and February 1991 the same one page questionnaire was circulated to the parents of all children aged 7½ to 8½ years attending public and private schools in the London borough of Croydon. Parents were asked, “Has your child ever had asthma?” and “Has he/she ever had attacks of wheezing in the chest?” Those responding positively to either question were asked whether the child had had attacks of asthma or wheezing in the past year. Further information was requested if this was so (see table).

Response rates were 87% (4147/4763) in 1978 and

81% (3070/3786) in 1991. Comparison of early and late respondents and schools with high and low response rates in the 1991 survey suggested minimal bias due to non-response. The proportion of children affected by wheezing in the past year increased slightly from 1978 to 1991, but the prevalence of frequent attacks (five or more a year) was unchanged (table). School absence attributable to wheezing was less common in 1991. Twice as many wheezy children had been diagnosed as asthmatic in 1991 as in 1978. Slightly more wheezy children were receiving treatment from the general practitioner in 1991 than in 1978 whereas outpatient supervision was somewhat less common. Use of casualty departments was greatly increased whereas home visits by general practitioners, particularly to children with frequent wheeze, had declined.

Admission rates for childhood asthma in Croydon have followed recent national trends. Hospital Activity Analysis data for 1977 show 57 emergency admissions (22.4 per 10 000) among Croydon residents aged 5-9 years admitted to any hospital in the South West Thames region. The corresponding figures for 1990 (hospital episode system data) are 83 admissions (43.9 per 10 000).

Comment

Few studies have used a standard methodology to investigate time trends in childhood asthma in Britain.³⁵ Our surveys are the first to measure changes in medical care and utilisation of services. These were

	No of attacks of wheeze in past year		All children with attacks in past year†
	<5	≥5	
Prevalence of asthma or wheezing, or both, in past year (per 100 children):			
1978	8.3 (344/4147)	2.5 (102/4147)	11.1 (459/4147)
1991	10.1 (309/3070)	2.6 (79/3070)	12.8 (393/3070)
1991/1978 [95% CI‡]	1.21* [1.05 to 1.41]	1.05 [0.79 to 1.40]	1.16* [1.02 to 1.31]
Percentage of wheezy children with:			
Male sex	{ 1978 59 (204/344) 1991 55 (170/309) 1991/1978 [95% CI] 0.93 [0.81 to 1.06]	{ 48 (49/102) 54 (43/79) 1.13 [0.85 to 1.51]	{ 56 (259/459) 55 (216/393) 0.97 [0.87 to 1.11]
Attacks usually associated with colds or bronchitis	{ 1978 87 (292/335) 1991 87 (266/306) 1991/1978 [95% CI] 1.00 [0.94 to 1.06]	{ 66 (65/99) 67 (50/75) 1.02 [0.82 to 1.26]	{ 83 (363/440) 83 (317/383) 1.00 [0.94 to 1.07]
History of asthma	{ 1978 21 (72/335) 1991 55 (163/297) 1991/1978 [95% CI] 2.58*** [2.05 to 3.25]	{ 61 (61/100) 82 (64/78) 1.35*** [1.11 to 1.64]	{ 31 (137/445) 61 (230/380) 1.97*** [1.67 to 2.31]
Attacks causing school absence	{ 1978 74 (244/331) 1991 65 (198/306) 1991/1978 [95% CI] 0.88* [0.79 to 0.97]	{ 82 (82/100) 71 (55/78) 0.86 [0.73 to 1.02]	{ 76 (331/437) 66 (253/385) 0.87** [0.79 to 0.95]
Attacks treated by general practitioner at surgery	{ 1978 72 (244/338) 1991 82 (252/308) 1991/1978 [95% CI] 1.13** [1.04 to 1.23]	{ 91 (90/99) 91 (72/79) 1.00 [0.91 to 1.10]	{ 77 (339/443) 84 (326/389) 1.10* [1.02 to 1.17]
Attacks treated by general practitioner at home	{ 1978 27 (91/338) 1991 21 (64/308) 1991/1978 [95% CI] 0.77 [0.58 to 1.02]	{ 47 (47/99) 19 (15/79) 0.40*** [0.24 to 0.66]	{ 32 (141/443) 20 (79/389) 0.64*** [0.50 to 0.81]
Attacks treated in casualty departments	{ 1978 3 (10/325) 1991 12 (35/303) 1991/1978 [95% CI] 3.75*** [1.89 to 7.456]	{ 12 (11/95) 22 (17/78) 1.88 [0.94 to 3.78]	{ 5 (22/425) 14 (52/383) 2.62*** [1.62 to 4.23]
Attacks treated in outpatient departments	{ 1978 6 (21/325) 1991 7 (20/303) 1991/1978 [95% CI] 1.02 [0.57 to 1.85]	{ 32 (30/95) 21 (16/78) 0.65 [0.38 to 1.10]	{ 12 (53/425) 9 (36/383) 0.75 [0.51 to 1.12]

*p<0.05. **p<0.01. ***p<0.001.

†Some children with no information on frequency of attacks are included. Therefore, row totals do not equal sum of cell totals.

‡CI=Confidence interval.

generally more striking than changes in the prevalence or frequency of wheezing attacks.

Greater use of the asthma diagnosis, as found elsewhere,^{3,5} may reflect better medical care, which could, for example, explain the reduction in school absence. Changing lay and professional attitudes to the management of acute asthma probably underlie the observed shift from general practitioner care to casualty attendance. This could be an important influence on admission rates as a wheezy child attending a casualty department may be more likely to be admitted to the ward than a child managed at home by the general practitioner.

We suggest that the recent rise in hospital admission rates for asthma in childhood may reflect trends in provision and utilisation of health services rather than major changes in morbidity. Our results are consistent with those in other studies indicating a small but significant increase in the prevalence of wheeze.^{3,5} Possibly attacks of wheezing, though no more frequent, may have become more intense and therefore more deserving of admission to hospital. We are therefore

following up the 1991 survey with a detailed interview of parents of wheezy children, similar to that used in 1978, to explore possible changes in the severity of wheezing attacks and the degree of associated morbidity.

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ONE HUNDRED YEARS AGO

TOBACCO SMOKING.

Another but somewhat feeble attempt has been made during the week to commence a new counterblast against the habit of tobacco smoking, and resolutions have been adopted at a public meeting to found a National Anti-tobacco Society, appointing Dr. Drysdale president, and Mr. Forbes secretary, and electing a committee to carry out its objects. So far as those objects are connected with the desire to prevent the abuse and excess of tobacco smoking among the young it will have general sympathy, but beyond this few will care to go, and the society is likely to fail in doing any good which tries to do too much. Tobacco smoking is a habit in which divines, philosophers,

and doctors have found solace and comfort for more than three centuries; it is practised so widely and so universally that it is idle to quote a few isolated opinions against it or fanatically to denounce it as pernicious. The universal experience of mankind has settled the question on quite another footing. Tobacco has taken its place as meeting a universal taste and conferring a "privilege" appreciated by thousands, and unless Dr. Drysdale and his associates desire to be classed with the body of harmless fanatics, they should address themselves to those excesses of smoking which are manifestly injurious, and should avoid the attempt to do the impossible by aiming at suppressing smoking altogether. (*BMJ* 1892;i:675)