

also with more general practitioners over 65 and smaller list sizes. In these circumstances, low rates indicate both a healthier population and a less adequate practice organisation. Why and where such population and practice characteristics coincide to explain these outputs requires further research.

Our analysis is inevitably a tentative first step. It identifies the need for further development. Not only is there a case for developing a more sophisticated data set for primary health care, along the lines recommended by the Family Practice Service Indicators Working Party,<sup>14</sup> and breaking down composite indicators such as the Jarman index into their component parts, but there is a need to develop outcome indicators designed to measure the impact of primary health care on the populations' health and to link family health service authority data with information about hospital, community, and social services. Despite such reservation, the analysis found powerful relations between population, input, and output variables with relatively simple techniques. We conclude therefore that treating family health services authorities as discrete primary health care systems and using the family health service authority performance indicators to examine the variations between them is a useful and rewarding basis for studying the dynamics of general practice.

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- 1 Butler JR. *How many patients?* London: Bedford Square Press, 1980.
- 2 Butler JR, Calman M. *Too many patients?* Aldershot: Avebury, 1987.
- 3 Wilkin D, Hallam L, Leavy R, Metcalfe D. *Anatomy of urban general practice.* London: Tavistock, 1987.
- 4 Bosanquet N, Leese B. *Family doctors and incentives.* Aldershot: Dartmouth, 1989.
- 5 Secretaries of State for Health, Wales, Northern Ireland, and Scotland. *Working for patients.* London: HMSO, 1989.
- 6 Department of Health. *Terms of service for doctors in general practice.* London: Department of Health, 1989.
- 7 Klein R. Performance evaluation and the National Health Service. *Public Administration* 1982;60:385-407.
- 8 Townsend P, Davidson N, eds. *Inequalities in health.* Harmondsworth: Penguin, 1988.
- 9 Jarman B. Underprivileged areas: validation and distribution of scores. *BMJ* 1984;289:1587-92.
- 10 Carr-Hill RA, Sheldon T. Designing a deprivation payment for general practitioners: the UPA(8) wonderland. *BMJ* 1991;302:393-6.
- 11 Davey Smith G. Second thoughts on the Jarman Index. *BMJ* 1991;302:359-60.
- 12 Talbot RJ. Underprivileged areas and health care planning; implications of the use of Jarman indicators of deprivation. *BMJ* 1991;302:383-6.
- 13 Senior ML. Deprivation payments to general practitioners: not what the doctor ordered. *Environment and Planning: C Government and Policy* (in press).
- 14 Review Group of Family Practice Service Indicators. *Family practice service indicators* London: Department of Health, 1990.
- 15 Devore J, Peck R. *Statistics: the exploration and analysis of data.* St Paul, Minnesota: West Publishing Company, 1986.
- 16 Statistical Services Centre. *Instat: an interactive statistics package.* Reading, University of Reading, 1986.
- 17 Mechanic D. Correlates of physician utilization: why do major multivariate studies of physician utilization find trivial psychosocial and organisational effects? *J Health Soc Behav* 1979;20:387-96.
- 18 Illsley R. Occupational class, selection and the production of inequalities in health. *Quarterly Journal of Social Affairs* 1986;2:151-65.

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## Admission to child health surveillance lists: the views of FHSA general managers and general practitioners

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### Abstract

**Objectives**—To find out the sources of advice that were helpful to managers of family health services authorities in drawing up the criteria for admission of general practitioners to the child health surveillance lists; to determine the criteria used for admission of general practitioners to the family health services authorities' child health surveillance lists; to find out the changes general practitioners have made in child health surveillance in their practices; to determine the experiences of general practitioners relating to admission to the child health surveillance lists and to training in child health surveillance.

**Design**—Survey by postal questionnaire.

**Subjects**—General managers of all family health services authorities in England and Wales; all general practitioners in Yorkshire and Humberside.

**Results**—Managers of 80 of 93 family health services authorities replied (86%). A total of 62 (78%) found local community paediatricians helpful in compiling criteria for admission to child health surveillance lists, and 46 (57%) found national guidelines helpful. Fifty seven (71%) accepted general practitioners who had completed an approved course, and 45 (56%) accepted those with three or more years' experience of child health surveillance. Of the 1966 questionnaires sent to general practitioners, 1233 were satisfactorily completed (63%). Of the 919 respondents who had applied to be put on child health surveillance lists, 673 (73%) had been permanently accepted; of these, 441 (65%) had done an approved course and 375 (56%) had had three or more years' experience of child health surveillance. Of the 145 (16%) not accepted, 57 (39%) had done an approved course and 71 (49%) had three or more

years' experience. Respondents reported variable quality and availability of courses in child health.

**Conclusions**—Acceptance of general practitioners on to child surveillance lists has not been carried out consistently despite national guidelines setting out criteria for acceptance.

### Introduction

Before April 1990 general practitioners could provide child health surveillance for their patients but received no extra remuneration for this service. The introduction of a fee for child health surveillance was accompanied by the requirement that family practitioner committees, as they were then, should establish lists of general practitioners eligible to carry out child health surveillance. A Department of Health circular on child health surveillance in regard to implementation of the new GP contract, sent to regional and district general managers in February 1990, emphasised the importance of agreed policies between district health authorities and family practitioner committees so that child health services would be "provided in a consistent and coherent way." The first policy area mentioned by the circular is "the criteria—based on experience and training during the five years immediately preceding the application—which determine the eligibility of general practitioners to be included on the child health surveillance list." The guidelines for the training and accreditation of general practitioners in child health surveillance produced jointly by the Royal College of General Practitioners and the British Paediatric Association are mentioned as an adjunct to this.<sup>1</sup>

These guidelines suggest that there are three groups of general practitioners likely to join the list. The first

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group consists of general practitioners "who can demonstrate that they have carried out a systematic child health surveillance programme for a substantial period of time, normally three years or more." The second group of general practitioners are those who would require a training programme. The training programme recommended consists of a minimum of four, and preferably six, theoretical sessions and six practical sessions. The third group consists of those general practitioners who can justifiably claim competence to carry out child health surveillance—for example, general practitioners with recent experience in community child health.

We are all involved in continuing medical education of general practitioners and have received many queries and comments from general practitioners about training and accreditation for child health surveillance. Listening to the experiences of our colleagues gave us the impression that there was a considerable variation between districts in the criteria used for admission to the list, in the administration of child health surveillance services generally, and in the availability and quality of training courses on child health surveillance. We therefore conducted a questionnaire survey of general managers of family health services authorities and general practitioners during September, October, and November 1990. The objectives of the study were to find out which sources of advice were helpful to family health services authorities in drawing up the criteria for admission of general practitioners to the child health surveillance lists; to find out what criteria were actually used for admission to the child

health surveillance lists; to find out what changes general practitioners have made in child health surveillance in their practices under the new contract; and to determine the experiences of general practitioners relating to admission to the child health surveillance lists and to training in child health surveillance.

## Methods

### SURVEY OF MANAGERS OF FAMILY HEALTH SERVICES AUTHORITIES

The questionnaire sent to managers of family health services authorities consisted of two main sections. The first gave a list of possible sources of advice for compiling the criteria for admission. For each of these, respondents were asked to state whether they strongly agreed, agreed, were neutral, disagreed, or strongly disagreed with the statement, "The following were helpful in providing information which enabled me to compile the criteria for admission to the family practitioner committee's child health surveillance list." An open section was included for other sources of advice and comments.

The second section related to the qualifications and experience needed for acceptance on to the list. For each specified qualification or type of experience the respondents were asked to state whether this would lead to automatic acceptance without other qualifications or experience, whether it was relevant if combined with other qualifications or experience, or whether it was not relevant. An open section was again provided for other criteria and comments.

The questionnaire was piloted on five managers of family health services authorities and then sent to all the remaining managers in England and Wales. Non-respondents were sent a second questionnaire after three weeks.

### SURVEY OF GENERAL PRACTITIONERS IN YORKSHIRE AND HUMBERSIDE

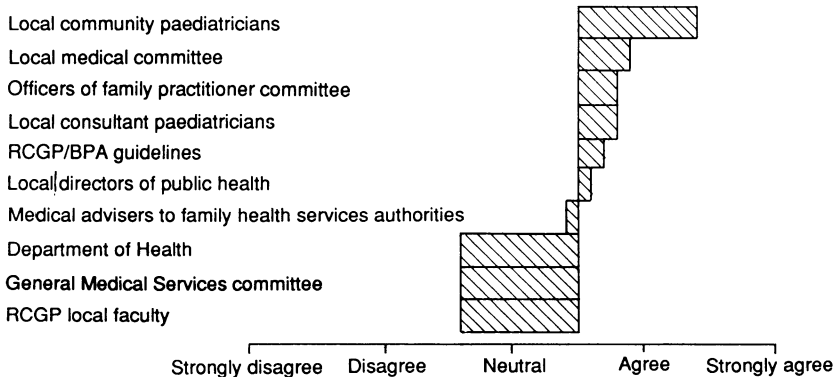
A questionnaire was developed to ascertain whether child health surveillance was being carried out in the respondent's practice, whether there had been any changes in the practice's provision of child health surveillance, if the respondent had applied for admission to the child health surveillance list, and if he or she had been accepted, conditionally or otherwise. The questionnaire then dealt with the qualifications and experience in child health surveillance of the respondent, if the district health authority had produced precise definitions of the work to be done by general practitioners in child health surveillance, if respondents had had difficulty in finding approved child health surveillance courses, and, for those who had attended such a course in the previous year, a structured assessment of its usefulness to them.

The questionnaire was piloted on 50 general practitioners in districts neighbouring Yorkshire and was then sent to all 1966 general practitioners in Yorkshire and Humberside. Responses to closed questions were analysed using a computer database, and free text responses were recorded in categories by the authors. The proportions of respondents in each partnership size and of those on child health surveillance lists were compared with figures supplied by family health services authorities.

## Results

### MANAGERS OF FAMILY HEALTH SERVICES AUTHORITIES

In all, 93 questionnaires were sent out in the main study (five having been sent out in the pilot survey), of which 80 were returned satisfactorily completed, a response rate of 86%. The figure shows the responses to the first section (possible sources of advice) as



Deviation from weighted average response of 80 managers of family health services authorities to the statement: "The following were helpful in providing information which enabled me to compile the criteria for admission to the child health surveillance list"

TABLE I—Number (%) of 80 managers of family health services authorities responding to the statement: "In my district, the following are accepted as adequate qualification/experience for acceptance on to the child health surveillance list"

	Automatic acceptance without other qualifications or experience	Relevant if combined with other qualifications or experience	Not relevant	No response
Principal having completed approved training course in child health surveillance	57 (71)	15 (19)	1 (1)	6 (8)
Principal with comprehensive child health surveillance programme for three years or more	45 (56)	24 (30)	3 (4)	6 (8)
Previous community medical officer post in community child health	34 (43)	35 (44)	1 (1)	8 (10)
Previous senior house officer post in community paediatrics	19 (24)	47 (59)	2 (3)	10 (13)
Principal with comprehensive child health surveillance programme for less than three years	17 (21)	46 (58)	7 (9)	9 (11)
DCCH	15 (19)	44 (55)	7 (9)	13 (16)
DCH	13 (16)	54 (68)	4 (5)	9 (11)
MRCP (paediatrics)	7 (9)	49 (61)	12 (15)	11 (14)
Previous senior house officer post in paediatrics	6 (8)	57 (71)	6 (8)	10 (13)
Newly appointed principal having completed vocational training scheme in last 12 months	4 (5)	35 (44)	30 (38)	9 (11)
MRCGP	2 (3)	38 (48)	28 (35)	12 (15)
Being a principal in general practice		23 (29)	45 (56)	11 (14)

TABLE II—Characteristics of general practitioners in family health services authorities (FHSA) in Yorkshire and Humberside. Figures are numbers (percentages)

	Family health services authority							Total
	1	2	3	4	5	6	7	
GPs on FHSA list	253	192	102	392	174	403	450	1966
GPs on child health surveillance list	160 (63)	104 (54)	32 (31)	229 (58)	120 (69)	323 (80)	165 (37)	1133 (58)
Respondents to questionnaire	161 (64)	134 (70)	69 (68)	221 (56)	104 (60)	293 (73)	248 (55)	1230 (63)*
Applicants for child health surveillance list†	106 (66)	98 (73)	37 (54)	176 (80)	77 (74)	259 (88)	166 (67)	919 (75)
Accepted:								
Permanently	45 (42)	75 (77)	25 (68)	150 (85)	66 (86)	212 (82)	99 (60)	673 (73)*
Temporarily	56 (53)	7 (7)	1 (3)	7 (4)	2 (3)	22 (9)	2 (1)	98 (11)
Not accepted	5 (5)	15 (15)	10 (27)	17 (10)	8 (10)	25 (10)	65 (39)	145 (16)
No response to this question	0	1 (1)	1 (3)	2 (1)	1 (1)	0	0	5

\*Three respondents removed the identifying code from the questionnaire.

†Percentage given is percentage of respondents.

TABLE III—Experience and training of general practitioners accepted permanently on to child health surveillance list compared with those not accepted on to list

	GPs accepted permanently (n=675)	GPs not accepted (n=145)
Experience of child health surveillance in general practice:		
≥3 years	375 (56)	71 (49)
<3 years	189 (28)	33 (23)
None	71 (11)	36 (25)
Approved course in child health surveillance	441 (65)	57 (39)
Approved course plus 3 or more years' experience	235 (35)	25 (17)
No experience of child health surveillance in general practice and no approved course	19 (3)	21 (14)
Community medical officer post in community child health	84 (12)	3 (2)
Senior house officer in community paediatrics	32 (5)	3 (2)

deviations from the weighted average response, ranked in order of the percentage of respondents who agreed or strongly agreed that a particular agency had been helpful in compiling the criteria for admission to the child health surveillance lists. Other sources of advice were also mentioned: local general practitioners with paediatric experience, district health authorities, health visitors, health visitor and nurse managers, general practitioner tutors, and other family health services authority managers. Nineteen family health services authorities (25%) said that they did not have independent medical advisers available at that time.

Table I shows the responses to the second section, ranked by the percentage of respondents who considered that the particular qualification or experience would lead to automatic acceptance on to the child health surveillance list. Some family health services authorities had different criteria for general practitioners in different district health authorities, depending on the policy of the district health authority. In one case the family health services authority had to deal with four different district health authorities. Some of those who did not respond to parts of this section referred to the reports and leaflets they had sent when returning their questionnaire. Several family health services authorities stated that qualifications had to be obtained within a given time, often in the past five years, but some required them to be within the past three years, and in one case only approved courses in the previous year were considered adequate.

#### GENERAL PRACTITIONERS

Of the 1966 questionnaires sent out, 1253 were returned, of which 1233 were satisfactorily completed, giving a response rate of 63%. Singlehanded general practitioners were underrepresented in the respondents (7% of respondents as against 12% of the total). The percentage of respondents who had been accepted for

child health surveillance was similar to the percentage of all general practitioners who had been accepted in each family health services authority area, except for one where 70% had been accepted, compared with 59% of respondents ( $p < 0.01$ ,  $\chi^2$  test).

#### CHILD HEALTH SURVEILLANCE IN THE PRACTICES

Of the respondents, 673 (55%) personally carried out child health surveillance in their practices and a further 348 (28%) were in practices where child health surveillance was carried out by someone else. One hundred and eighty (15%) said that no one in the practice carried out child health surveillance. A total of 328 respondents (27%) were in practices that had started a child health surveillance programme after 1 January 1990, and 410 respondents (33%) had recently modified an existing programme. In all, 129 respondents (10%) said that their district health authority had not produced precise definitions of the work to be done by general practitioners in child health surveillance, and a further 260 (21%) were uncertain whether their district health authority had produced such guidelines.

In those practices not carrying out child health surveillance, 14 respondents (1%) had stopped since 1 January 1990, 87 (7%) did not intend to start, 59 (5%) intended to start, and 84 (7%) were uncertain.

#### ADMISSION TO CHILD HEALTH SURVEILLANCE LISTS

Table II shows the distribution of general practitioners in each family health services authority area, numbers actually on the family health services authority's child health surveillance list, numbers of respondents in each family health services authority area, and the numbers of respondents who applied and who were accepted permanently or temporarily in each family health service authority area. Of those who applied, 422 (46%; 34% of all respondents) had been required to attend a course in child health surveillance as a condition of acceptance.

Table III shows the experience and training of those accepted permanently on to their family health services authority's lists, and of those who were not accepted. Several general practitioners commented that their extensive experience of caring for children in general practice had been disregarded and that they felt resentful that general practitioners in other areas had been accepted with less experience or fewer qualifications than themselves.

#### APPROVED TRAINING COURSES

A total of 113 respondents (9%) had either some difficulty or great difficulty in finding an approved training course. Several commented that, because all their partners had also been required to attend a course, some of them had to travel further afield as they could not all be absent from the practice at once to attend a local course.

The section evaluating an approved course that they had attended in the past year was filled in by 532 respondents (43%). Although 424 (80%) of these felt that the content of their course was relevant to general practice, only 346 (65%) felt that they had gained new information and 235 (44%) that they had learned new skills. A total of 218 (41%) felt that the courses did not take into account their previous experience of children. The length of the courses varied from two days' theory to five days' theory and six or more practical sessions. The comments on courses ranged from "excellent, stimulating" to "futile, patronising, too didactic, poor lectures, a complete waste of time." Several respondents commented that the courses were too basic and underestimated general practitioners' knowledge and experience of children.

## Discussion

These results show variation in the criteria used by family health services authorities for accepting general practitioners on to child health surveillance lists. They also show a wide variation in the percentage of general practitioners in each family health services authority on the child health surveillance list.

An efficient national child health surveillance programme should be easily available to all children, and the potential to provide this as a part of primary care has long been recognised.<sup>2,3</sup> This study highlights a major change in the provision of child health surveillance in the NHS, with a quarter of general practitioner respondents having started child surveillance after January 1990 and a further third having changed their child health surveillance programme. Even so, child health surveillance was not carried out in the practices of a seventh of respondents; a quarter of respondents had not applied to be on child health surveillance lists, and a further fifth had applied and been refused.

The variability of the criteria used for admission to the child health surveillance lists caused many of the respondents to feel strongly that they had been unfairly treated. Perhaps of greater importance, however, is the variation in quality of service that may result.

Varying reports have been published on the effectiveness of child health surveillance,<sup>4,5</sup> and the Hall report repeatedly points to where further research and evaluation of the child health surveillance programme is needed.<sup>6</sup> General practitioners, with their well defined practice populations, are ideally placed to collect information for this purpose. It is difficult to believe that a general medical practitioner capable of delivering general medical services would not be capable of carrying out child health surveillance, given appropriate training.

The guidelines of the Royal College of General Practitioners and British Paediatric Association were the subject of much discussion after their publication. They place great emphasis on training and recommend a theoretical course of six sessions (minimum four sessions) with six practical sessions. The syllabus recommended in the guidelines is so extensive, however, that in our opinion it is difficult to cover fully in less than 12 theoretical sessions. Much of it is at

undergraduate or vocational training level. Attempts to fit all this into too short a time may have given rise to intensive lecture courses with inappropriate content for established general practitioners. It is understandable that general practitioners with 10 or more years' experience of child health surveillance should feel resentful if they are not approved while general practitioners who have only been on such a course are approved.

We think that it would be more appropriate, and in keeping with the recommendations of *Healthier Children—Thinking Prevention*<sup>3</sup> and the Hall report,<sup>6</sup> that all general practitioners interested in providing child health surveillance for their patients should be encouraged to do so. *Healthier Children—Thinking Prevention* suggests that education for child surveillance should continue throughout the career and be based on the needs of the learner.<sup>3</sup> This can be carried out effectively in local educational groups of general practitioners and other health professionals. They could work together to increase their expertise in child health surveillance, to monitor their own performance, and to compare their performance with their peers. We would urge that all general practitioners who are prepared to undertake such continuing education and to work with the district health authority in attempts to measure the comprehensiveness, quality, and effectiveness of the child health surveillance programme should be included on the child health surveillance list.

Our thanks to Professor Conrad Harris for his guidance, to Drs Michael Wilson and David Eastham for their support, to the Yorkshire Faculty of the Royal College of General Practitioners for financial assistance, to Chris Evans for help with data analysis, and especially to Mrs Jean Martin for her invaluable work in circulating the questionnaires.

1 Royal College of General Practitioners and British Paediatric Association. *Guidelines for the training and accreditation of general practitioners in child health surveillance*. London: RCGP and BPA, 1989.

2 Royal College of General Practitioners. *Policy statement—the care of children: comments on the report of the Child Health Services Committee* (1976). *J R Coll Gen Pract* 1978;28:553-6.

3 Royal College of General Practitioners. *Healthier children—thinking prevention*. London: RCGP, 1982. (Report from general practice 22.)

4 Colver AF. Health surveillance of preschool children: four years' experience. *BMJ* 1990;300:1246-8.

5 Dearlove J, Kearney D. How good is general practice developmental screening? *BMJ* 1990;300:1177-80.

6 Hall DMB. *Health for all children: a programme for child health surveillance*. Oxford: Oxford Medical Publications, 1989.

## A PAPER THAT CHANGED MY PRACTICE

### The harmony of growth

With her inimitable and succinct style Elsie Widdowson strode through the world of biology in her 1970 Sanderson-Wells University of London lecture, and the *Lancet* published her paper on 2 May. It set out to show how perfectly a multitude of different processes working together in harmony resulted in the complex growth of living organisms. There were plenty of data in the paper, but what struck me was the breadth of knowledge of the author and the thread she sought to demonstrate running across the species.

I was struggling at the time to make sense of that experiment of man called obesity, specifically obesity in childhood, and from this time I began to see a logic in the work I was doing. Dr Widdowson's own experiments (with Professor McCance) on animal (and human) growth have been amply confirmed in the studies with which I have since been concerned on the control of human growth in infancy, childhood, and puberty, but it was the lateral thinking in the paper which changed things for me.

Medical students and young doctors receive a more or less constant input of sensory information and you try to make the best of what comes out. When you start in research the future stretches indefinitely and busy

clinicians (who often hide the paucity of creation behind their business) have suddenly to generate their own stimulation. The desk is void until you fill it—and everybody else around you seems so clever and busy. Many clinicians find such sensory deprivation hard to bear and the time that has to elapse between the starting of the collection of data and the pleasure in analysing it deeply depressing. This is one reason why research is such hard work but ultimately so rewarding. Dr Widdowson's paper showed me how wide could be the appreciation of such a set of data, how infinite the elegance of nature in the control of biological processes.

Her paper ended with the inscription on the bells of Colchester town hall:

Differing in size, in note, in weight,  
Yet, small or great,  
We harmonize.

That is what has illumined my clinical practice.—C G D BROOK, professor of paediatric endocrinology, University College London, and consultant paediatrician, Middlesex Hospital

Widdowson EM. Harmony of growth. *Lancet* 1970;i:901-5.