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Child health surveillance

New report highlights value of parental observations

The foundations of our current child health services were laid at the beginning of this century. In 1922, the county medical officer for Nottingham wrote in his annual report: "In 1897 no interest had begun to be taken in Child Welfare, and the community was content that 152 out of every 1000 children born should die within the year. Three years later the numbers reached 161. Last year only 69 children died out of every thousand born. But in the meantime, two doctors, 10 wholetime women Health Visitors and 15 part time Health Visitors have been appointed and are working in connection with 13 Child Welfare Centres."

Sixty seven years later infant mortality is less than 10 per 1000 births, and the number of doctors and nurses working in child health surveillance is 10 times higher. I, too, would like to believe that our child health services are a major force in this improvement, but proof is difficult to obtain. In 1922 the emphasis of the service was to "provide medical and especially hygiene advice."[1] From this developed a system of regular checks on children that we now call child health surveillance. In the Sheldon Report the functions of the child health service were listed as routine medical examinations of children presumed to be healthy; infant nutrition and hygiene; detection of defects—physical disorders, mental retardation, and emotional health; parental counselling; health education; measurements; immunisation and vaccination; and the sale of welfare and proprietary foods.[2]

The series of checks recommended in this 1967 report has been repeated with almost unquestioning faith ever since. Some changes have been made in terms of less frequent checks, but what was once innovation has become tradition and sometimes seemingly immune to improvements in our knowledge or to the type of critical thought or original ideas that led to the birth of our child health services.

At last, however, we have a new and welcome review of child health surveillance. *Health for All Children* is the result of two years' work by a joint working party representing the British Paediatric Association, the Royal College of General Practitioners, the General Medical Services Committee of the British Medical Association, the Health Visitors' Association, and the Royal College of Nurses.[3]

The report has three broad thrusts. Firstly, it argues that the content of the screening programme should be determined by our state of knowledge about the conditions sought, the effectiveness of the test, and the availability of programmes for management. Secondly, it emphasises the good evidence that parents are far more effective than professionals in the early diagnosis of a wide range of handicaps.[4-7] Thirdly, the report underlines and clarifies the health education content of the surveillance programme.

For each section of the report the working party reviewed current evidence and made recommendations for practice and research. The package of recommendations is condensed into checks at birth, at discharge from hospital, 6 weeks, 8 months, 21 months, 39 months, and 5 years and school age.

In physical examination the report recommends the continuation of screening for congenital dislocation of the hip, congenital heart disease, and undescended testes. The case for these is strong, but successful programmes depend on clinical skills and a good organisational framework. Even for these conditions the report points to our lack of information on aspects such as the natural course of congenital dislocation of the hip or the assumed value of repeated examinations in reducing late diagnosis. Screening is not recommended for hypertension, asthma, and adolescent scoliosis. Screening for hypertension is a very blunt instrument for identifying children with secondary hypertension, and we have no accepted treatment to offer for other causes of hypertension.[8] For asthma it is argued that general awareness would be more effective than screening, as the children are already brought to medical attention by their parents.[9] For adolescent scoliosis more research is needed on the natural course and to improve the predictive value of examinations.

In laboratory and radiological tests only the well established programmes for phenylketonuria and hypothyroidism receive full support. The common problem of iron deficiency anaemia might seem a reasonable target for a screening programme, yet important questions remain to be answered about the acceptability of screening, the effectiveness of intervention programmes, and the part of health education in prevention.[10 11] Screening for haemoglobinopathies is supported, but the working party acknowledges that more resources and organisation will be required to deliver such a programme.[12]

Monitoring of growth might be regarded as a foundation stone of the child health clinic. Yet the report reminds us that the practice may well not justify the effort if measurements are inaccurate and are not plotted on growth charts and if those who work in clinics are not trained in their interpretation. Weighing at each clinic visit and measuring height at 3 years and between 4 and 5 years are both recommended.

For testing vision in the young child the evidence is that our efforts are ineffective and that we do better to rely on careful inspection of the eyes and the child's visual behaviour and to recognise the importance of parental observations.[4 13-15] At

school entry a test of visual acuity is recommended (repeated at three yearly intervals), and a colour vision test between 9 and 13. At present—however desirable would be the aim of preventing amblyopia—we have no suitable screening method for early detection. Much research needs to be done before we can be confident that vision screening programmes can prevent amblyopia.

The ability correctly to diagnose sensorineural hearing losses at an early stage has been regarded as a useful indicator of the effectiveness of child health services. Distraction testing at 6 to 8 months has been regarded as the means for achieving this. The test requires a high level of skill and good conditions if valid results are to be obtained. Modern technological innovations in neonatal screening such as the auditory response cradle have not solved all the problems,[16] and parental observations may continue to be better than any clinical skill or technological advance.[17 18] The report recommends screening in the first year of life using the distraction test, a universal screen at school entry, and a service that is responsive to parental concerns. The importance of adequate diagnostic facilities to follow up screening tests is emphasised.

"Developmental screening" has become an invention of the generations of developmental paediatricians since the sequence of normal development was described.[19] These descriptions were translated into scales of normal and abnormal development and applied to whole populations of children. The wide variation of "normal," the difficulty of showing it, and the poor predictive value of early developmental tests have resulted in a system with false positives and negatives. The commonsense solution—to rely on and respond to parental observations—has now been endorsed by this report, supported as it is by an increasing body of research results.[6 7] Those carrying out surveillance of children's development will need to move away from their crayons and one inch cubes and cultivate new skills in history taking and observation.

This report shows us what we have learnt about child health surveillance. We have learnt what we do not know. The "biblical" method of assessment—"he looked at it and saw that it was good"—is no longer an adequate means of determining what should be the content of our programmes. Much research remains to be done. What we are sure of we should do well, with full awareness of the importance of our partnership with parents. The time released by doing less, but doing it well, can be well used in the next stage of providing help for those children and families whose needs are identified by the programme.

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"Health for All Children" and the new contract

The new report *Health for All Children*, outlined by Dr Polnay in the previous article, is a consensus view on the nature and purpose of a child health surveillance programme. The issue of how such a programme should be delivered is, however, still unresolved.[1] For many years community doctors, health visitors, and general practitioners have contested the ownership of child health surveillance.[2]

A flexible approach to child health surveillance is desirable, with an emphasis on preventive work, guidance, and support to parents. Resources should be directed to those parents who need them most. Yet the programme as described in the new report contains only a few checks and screening tests that require skills unique to doctors—specifically, the examination at six weeks and some later physical checks that can be carried out on an opportunistic basis.

The new contract for general practitioners suggests that family practitioner committees should admit "suitably trained" doctors to a list of doctors prepared to carry out a child health surveillance programme planned and approved by the health authority.[3] Its authors presumably supported the view that a child's development and health are intimately related to the health of the whole family and are therefore properly part of family medicine. But several questions remain.

Firstly, why does the contract not specify more precisely the content of the child health surveillance programme? Perhaps the authors reasoned that it would be undesirable to specify an identical programme for all children and for all areas of the country. A second and more puzzling question is the level of remuneration implied in the illustrative examples in the appendix of the new contract; they suggest that the capitation fee payable for child health surveillance may be only about one quarter of the maximum immunisation fee. Many general practitioners may feel that this would be inadequate to compensate for the further training required or for the investment of time. This will certainly be the case if the health authority or board specifies a complex programme that includes several detailed development examinations and must be delivered in its entirety by the general practitioner in person.

If, on the other hand, general practitioners are required to carry out only those checks that require physical examination, this service might be provided at the same time as other preventive health care activities such as postnatal checks and immunisations. General practitioners who achieve a high immunisation uptake may easily earn the extra income for child health surveillance. Conversely, general practitioners who do not offer a child health surveillance service may find their immunisation income seriously reduced because children who attend community clinics for health checks will also be likely to receive immunisations there.

Authorities and boards adopting this approach will need to provide the remainder of the surveillance programme by other means, and health visitors would be the obvious choice. Their training is oriented increasingly to health promotion and preventive care; they have access to the home more readily than do most other professions; and they have