

# Improved health care delivery in an inner-city well-baby clinic run by general practitioners

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**SUMMARY.** *The delivery of health care has been improved in an inner-city well-baby clinic by staffing the clinic with members of a primary health care team and by offering a therapeutic service together with a preventive service. Over a three-year period attendance at the clinic has doubled and the uptake of immunization has increased. Of children registered with the practice supplying the health care team, 95% are up to date with diphtheria, tetanus and polio immunizations and 93% have been immunized against measles. It is suggested that general practitioners should have greater involvement in the running of well-baby clinics.*

## Introduction

A WELL-BABY clinic is run from a purpose-built health centre in the inner-city area of St Paul's, Bristol. This is an area of great social deprivation with high unemployment and a large community of ethnic minority groups. There have been episodes of racial unrest.

The practice run from the health centre has 11 100 patients and is staffed by five general practitioners and three full-time and one part-time health visitors. Of the 805 children under five years of age registered with this practice (7.3% of the total practice population), approximately one-quarter are members of an ethnic minority group — most are West Indian but some originate from the Indian sub-continent and Vietnam. At least a third of the children have only one parent and 26 children are on the at-risk register. Over 95% of the children attending the well-baby clinic are registered with the practice.

It was apparent that many of the mothers considered the most important aspect of any clinic to be the delivery of a therapeutic service; preventive medicine, such as immunizations and check-ups, was low on their list of priorities.

## Background

The changes to the format of the clinic were prompted by the success of a small screening programme introduced in 1981 following two cases of nutritional rickets in Rastafarian babies in the practice.<sup>1</sup> Rastafarianism, a cult born in the West Indies, has many teachings; adherence to a strict vegan diet is advocated and, more significantly, there is great antipathy and suspicion towards white society and especially conventional medicine. Forty-eight Rastafarian children under the age of five years who were registered with the practice and were at risk of nutritional rickets were identified. Their notes revealed that these children rarely, if ever, attended the well-baby clinic, and few had even started their primary immunizations. After much effort, principally on the part of the health visitors, all these children were seen. A careful dietary history was taken, all the children were examined and 23 of them were biochemically and radiologically investigated at Bristol Children's Hospital. Seven children had nutritional rickets and 14 had severe iron deficiency anaemia.<sup>2</sup>

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As a result of this, excellent relationships were forged between the clinic and the Rastafarian community, who had been shown how rickets could be cured without even altering their diet. Rickets has now been eliminated, none of the Rastafarian children are anaemic, all have completed their primary immunizations and most importantly, all attend the well-baby clinic enthusiastically and continue with their iron and vitamin supplements. It therefore proved possible to introduce the concept of preventive medicine, having provided an effective diagnostic and therapeutic service. Thus encouraged, some important changes were made to the clinic at the beginning of 1982 in order to improve the attendance and the immunization rates.

## Changes made in the running of the clinic

Five changes were made in the running of the well-baby clinic. The first was that one general practice principal (J.J.) became the clinical medical officer assisted by a trainee general practitioner (M.R.) who is also trained in paediatrics. The second change was to allow open access to the clinic; children are still invited to the clinic by reminders issued by computer but, in addition, all children who attend the clinic, for whatever reason, are welcome. All the children are seen by the health visitors and, when appropriate, by the doctors. A therapeutic and counselling service is offered in addition to routine surveillance and immunizations. Prescriptions can be issued by the general practitioners when necessary.

The third change involved the integration of the work of the well-baby clinic into the doctors' surgery. A simple card is attached to the front of the A4 practice notes of each child aged under five years registered with the practice. All relevant checks and immunization details are recorded on the card when the child attends the clinic. Young children are frequent attenders at doctors' surgeries and children who have not attended the well-baby clinic can be easily identified. Any outstanding immunizations or health checks can be carried out in ordinary surgery time.

The fourth change was the introduction of a 'well-baby card';<sup>3</sup> this is a plastic card given to all mothers of children attending the clinic. It is the size of a credit card and provides details of all routine immunizations and health checks as well as details about the clinic itself. A colour Polaroid photograph of the child is laminated on the back of the card. Health checks and immunizations are recorded by punching a hole in the card.

The final change was the introduction of a meeting between doctors and health visitors lasting at least half an hour after each well-baby clinic. Patients who attend the clinic are discussed as are any referrals made and, importantly, the non-attenders and the action to be taken.

Immunizations and health checks carried out are recorded and entered into the Avon Area Health Authority Child Health Service computer.

The changes were introduced in 1982 and clinic attendances were recorded over a three-year period. In addition, a detailed diary was kept of all the children seen by the doctors in the clinic over a 38-week period in 1985.

## Results

Clinic attendance has increased by 115% over the three-year period (1485 clinic attendances in 1982 and 3195 in 1985). The number of children invited to the clinic increased by only 20% over this period, so this represents a true increase in attendance.

Approximately one in four children seeing the clinic doctor attended for a therapeutic service and prescriptions were written for 44% of these children (Table 1). These 'extra' consultations accounted for just 10% of the increase in clinic attendance. A breakdown of the consultations with the doctors is shown in Table 1.

The figures for the uptake of primary immunizations for children attending the clinic show an increase in the uptake of diphtheria, tetanus, polio and pertussis immunizations (Table 2). These figures, however, were produced by the Avon Child Health Service and are apparently incomplete; practice figures obtained by checking the individual notes of the children show uptake rates for diphtheria, tetanus and polio immunizations of 95% and for measles of 93%.

In 1985, 111 children who were not up to date with primary immunizations were identified by means of opportunistic screening. Fifty-two of these children have since been brought up to date and, in addition, many overdue health checks have been carried out. In 1985 it was found that 76 children attending the clinic were not registered with a doctor, although the parents thought they were. This was confirmed with the family practitioner committee, and all these children are now registered with the practice.

Finally, it is too early to assess the effectiveness of the well-baby cards as they were only introduced 10 months ago.

**Table 1.** Doctors' workload at the well-baby clinic over a 38-week period in 1985.

| Type of attendance      | No. (%) of children seen | No. of prescriptions issued (% of children seen) |
|-------------------------|--------------------------|--|
| Preventive ('clinic')   | 614 (73)                 | 18 (3)   |
| Therapeutic ('surgery') | 232 (27)                 | 103 (44)   |
| Total                   | 846 (100)                | 121 (14)   |

**Table 2.** Immunization rates of children attending the well-baby clinic in 1982 and 1985 (figures from the Avon Child Health Service).

| Year | No. of children eligible for immunization | No. (%) immunized for         |           |          |  |
|------|---|-------------------------------|-----------|----------|--|
|      |   | Diphtheria, tetanus and polio | Pertussis | Measles  |  |
| 1982 | 574                                       | 431 (75)                      | 264 (46)  | 431 (75) |  |
| 1985 | 690                                       | 593 (86)                      | 428 (62)  | 524 (76) |  |

## Discussion

General practitioners play an important role in preventive medicine, yet in the field of paediatrics, preventive services exist in the form of well-baby clinics run by the community medical services. In many inner-city areas, uptake of these services is poor<sup>4</sup> and those not attending are often the most needy.<sup>5</sup> In the inner-city area of St Paul's, Bristol where there is great social deprivation, the uptake of these preventive measures has been improved, with increased clinic attendance and increased uptake of primary immunizations.

Court and others have suggested that preventive and curative care should be supplied by the same team to provide a better framework for dealing with all aspects of care for the child.<sup>6,7</sup> This is the approach used in staffing the clinic described here with members of the primary health care team. The general practitioner is the clinical medical officer and, therefore, well known to the health visitors and patients. Because general practitioners and health visitors work closely together and have in-depth knowledge of the families, it is relatively easy to identify the wishes and needs of these families. The clinic has therefore been adapted to provide a therapeutic service in association with a preventive service.

The specific advantages of the clinic are the availability of

prescriptions where necessary, better follow up of non-clinic attenders and integration of preventive services into general practice surgery time. The latter has led to efficient information transfer from clinic to practice; many children who were not registered with a doctor were identified. In addition, investigative projects can be carried out within the framework of the clinic. All the children under five years of age are now screened for iron deficiency anaemia and sickle cell disease.

The discrepancy between the immunization rates recorded by the Avon Child Health Service and the actual immunization rates of the children registered with the practice is puzzling. It may be due in part to the high turnover of patients in the practice (20%), but this discrepancy is currently being investigated with the child health services.

We would support the view of the Royal College of General Practitioners<sup>8</sup> and the suggestions made in the Government's green paper<sup>9</sup> that well-baby clinics should be run by general practitioners. With some reservations about their training, the entry of general practitioners into the field of developmental testing has recently been welcomed.<sup>10</sup> We accept that some general practitioners would have neither the training nor the inclination to run such clinics themselves, but nevertheless they should work much more closely with clinical medical officers,<sup>11</sup> perhaps working together in the same clinic. In this way, the clinical medical officer's paediatric expertise and the general practitioner's knowledge of the patients could be combined advantageously. This could generate more enthusiasm for the running of clinics, resulting in improved uptake of services.<sup>12,13</sup>

The needs of patients will vary in different areas and a flexible approach is needed in the running of baby clinics. There should be opportunity for experiment, provided there is critical evaluation. In the final analysis, though, we feel that much of the success of the clinic described here has been due to the enthusiasm of the health visitors and doctors in creating a happy atmosphere where patients enjoy coming and can take advantage of the preventive services on offer.

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