

For Debate . . .

Changing patterns of home visiting in the North of England

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Abstract

The visiting habits of general practitioners in the north of England in 1969 and in 1980 have been compared. During this period overall visiting was reduced by 41%. The reduction was most pronounced in repeat visits, particularly to children. There was a greater reduction in visits to patients with respiratory disease than to those with other illness. The reduction was least in visits to patients over the age of 65. New visits requested by patients were reduced by 31%, but the general practitioner still considered that about the same percentage of patients could have attended the surgery as in 1969.

The reasons for these differences include flexible appointment systems, improved efficiency, better organisation of the surgery, and more flexible arrangements for certification of absence from work. Though total workload (as measured by the number of consultations with patients) has diminished, general practice has changed, being more concerned with prevention, chronic disease, and vocational training.

Introduction

Anxiety is often expressed that British general practitioners are not as willing as they were to make home visits to patients. Visiting of the elderly in particular has been considered inadequate.¹ Paradoxically, many general practitioners believe that home visits are still an essential and important component of their practice.² Inspired by the shortage of hard data we studied home visits in northern England in two weeks in 1980 and compared the findings with those of an almost identical study in 1969.³

Method

In both studies all fellows, members, and associates of the north of England faculty of the Royal College of General Practitioners were invited to take part and asked to recruit colleagues who were not in the college. A total of 190 doctors in 1969 and 202 in 1980 recorded details of all their home visits from Monday to Friday in the last week of November and first week of December. Surgery consultations

were also recorded, but weekend work was excluded. These dates were chosen because it was thought to be a period when holidays and epidemics were unlikely to interfere with the results.

The figure shows the questions asked on the form completed for each visit by doctors in the 1980 study; it is almost identical to that used in the 1969 study. The doctors gave the name, age, and sex of

RING NUMBERS OR WRITE DETAILS IN BOXES AS APPROPRIATE	
20-25 Date of Visit (e.g. 25.11.80)	37 Was clinical examination performed (anything in addition to taking pulse is yes) Yes 1 No 2
26 Was this a new visit 1 a re-visit 2 (a re-visit is one that you decide to make)	38 For new calls was call received between 8 a.m. and 10 a.m. (Call received on previous day for call today = Yes) Yes 1 No 2
27-28 IF RE-VISIT number of days since last visit by you or your deputy <input type="checkbox"/>	LATE CALLS: Was call received between 10 a.m. and 8 p.m. Yes 1 No 2
29 Further consultation required by a doctor (G.P.) No 1 Yes at home 2 Yes at surgery 3 Yes on telephone 4	40 8 p.m. and 8 a.m. Yes 1 No 2
30-31 In how many days time? (Put 0 if seeing again that day) <input type="checkbox"/>	41 Bearing in mind social circumstances (i.e. car owner, convenient bus route etc.) could this patient have come to see you? Yes 1 No 2 If yes why did the patient not do so, specify
32 Referred to Nurse (including midwife or health visitor) for next consultation (i.e. not just nursing services) No 1 Yes at home 2 Yes at surgery 3	42 Did you learn anything from today's visit which helped in the management of this patient's problems as a result of the patient being seen at home Yes 1 No 2 If yes specify what you learned from today's visit
33 Have you visited this family at this house before? No 1 Yes 2	43 SOCIAL CLASS OF HEAD OF HOUSEHOLD (In the case of retired or unemployed people their last occupation) (if in doubt guess) Professional (Doctor, Solicitor etc.) 1 Managerial (Inc. Teacher, Executive) 2 Skilled Worker (Plumber, etc.) 3 Semi-skilled (Process Worker etc.) 4 Unskilled (Labourer) 5
34 Is patient on regular chronic visiting list for this condition (i.e. visited for this condition for past three months and will continue to be visited for next three months) Yes 1 No 2	
35 Was patient sent to hospital as an in-patient this day Yes 1 No 2	
36 Was patient in bed (Baby in pram is in bed. Makeshift bed downstairs does not count as bed) Yes 1 No 2	

Form completed by doctors for home visits during study period 1980. First part of form (not shown) left for details of patient and office data.

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patients visited and gave a diagnosis, which was subsequently classified according to the International Classification of Diseases. The doctors were asked to state whether it was the first visit made to the patient for that illness (new visit) or a repeat visit, further classified according to whether it was a repeat visit for an acute or a chronic illness (a condition for which the patients had been visited in the past three months and would continue to be visited for the next three months). They were asked to give details of the time of the request for the visit, whether a follow up consultation with a nurse had been arranged, and whether the doctor considered a home visit had been necessary.

Results

Table I gives details of surgery consultations and home visits undertaken by the doctors in the two study periods. There was a 23% reduction in surgery consultations from 1969 to 1980 and a considerable reduction in all types of home visit. The ratio of surgery consultations to home visits was 3.1 to 1 in 1969 and 4.1 to 1 in 1980.

There was a great variation among practices in both surveys. The rate of visiting could be related only to those 40 practices where each member took part, but of these practices in 1980 the upper quartile was conducting twice as many surgery consultations per 1000 patients and four times the number of home visits per 1000 patients than the lower quartile.

TABLE I—Mean number of surgery consultations and home visits conducted by general practitioners in 1969 and 1980. Figures number per doctor per day

	1969	1980	% Reduction
Surgery consultations	28.5	21.9	23
Home visits	9.1	5.4	41
New	4.5	3.1	31
Repeat (acute)	2.8	1.2	57
Repeat (chronic)	1.8	1.1	39

TABLE II—Mean number of visits (new and repeat) made by each doctor over 10 day study period by age of patient

Age of patient (years)	Study		% Decrease
	1969	1980	
<i>New visits</i>			
<1	5.7	1.4	75
1-4	5.2	2.7	48
5-14	8.1	5.2	36
15-44	10.2	6.2	39
45-64	8.5	3.7	56
65 ≥	9.1	10.6	16*
<i>Repeat visits</i>			
<1	2.9	0.4	86
1-4	1.5	0.4	73
5-14	2.3	0.6	74
15-44	6.1	2.2	64
45-64	10.2	3.8	63
65 ≥	20.8	15.8	24

* Increase.

TABLE III—Mean number of home visits made by each doctor over 10 day study period by disease category*

Disease category*	1969	1980
Respiratory	34.0	14.2
Circulatory	10.0	7.1
Nervous and special sense	6.1	4.9
Gastrointestinal	5.8	4.6
Infectious	4.5	2.9
Musculoskeletal	4.4	3.6
Trauma	3.7	1.9
Neoplasms	2.9	2.7
Psychiatric	2.6	3.1
Pregnancy	2.6	1.7

* International Classification of Diseases.

When home visits were analysed by age of patient (table II) there was a reduction over the study periods in all groups, with the exception of new visits to patients over 65, which increased by 16%. The reduction in home visits was most pronounced in children, particularly in infants under 1 year.

Table III shows mean number of visits by disease classification. In both 1969 and 1980 respiratory diseases were the most common diagnosis in patients visited at home. The mean number of visits per doctor over a 10 day study period, however, fell from 34 in 1969 to 14 in 1980. The number of visits fell for every other disease except psychiatric illnesses, where the mean rose from 2.6 to 3.1: this rise was largely due to the increase in visits to patients with dementia.

A total of 14.8% of all patients visited at home were referred to a nurse for consultation follow up in 1969; this fell to 6.7% in 1980.

Monday was the busiest day of the week, with roughly one quarter

of all home visits in both study periods being conducted on this day. The proportion for other days of the week varied from 16% to 19% and were the same for both periods.

When requests for a home visit were analysed by the time of the call (table IV), numbers at all times fell, except those between 8 pm and 8 am, which rose.

In a total of 78.4% of all home visits in 1980 the doctor had visited the family in that house before.

Despite the absolute fall in the number of home visits, doctors in both study periods thought that about one quarter of patients visited at home (new visits) could have come to the surgery (27% in 1969 and 25% in 1980) (table V).

TABLE IV—Mean number of calls received for new visit by each doctor* over study period by time of receipt of call

Time	1969	1980
0800-1000	37.4	22.9
1001-2000	6.7	4.7
2001-0759	1.4	1.7
Not specified	1.7	0.9

* Excludes doctors who used deputising services.

TABLE V—Percentage of home visits judged unnecessary by doctors (patient could have come to surgery) by age of patient

Age (years)	1969	1980
<1	55	37
1-4	35	37
5-14	35	35
15-44	28	27
45-64	21	24
65 ≥	13	13
All patients	27	25

Discussion

The data were collected for only 10 working days in each of the two years from about 200 self selected doctors. Accordingly, it is not necessarily representative of the whole working year or of all doctors in the northern region. Nevertheless, a mean of 5.4 home visits and 21.9 surgery consultations per doctor per day appears to confirm some general practitioners' feelings that they are not always very busy and are certainly under less pressure than they were in 1969. (The results show a 41% reduction in home visiting, with newly requested visits reduced by 31%, acute repeat visits by 57%, and repeat visits for chronic illness by 39%.) A concomitant 23% reduction in attendances at the surgery indicates that the reduction in home visits has not led to more surgery attendances. Studies by Intercontinental Medical Statistics (a commercial organisation collecting data on workload and prescribing practices from general practice) show a similar reduction in home visits of 43% during the same period.⁴

There was a considerable reduction in both new visits and repeat visits in all age groups except the over 65s where new calls actually rose by 16% and repeat visits reduced by only 24% compared with around 70% for all other age groups.

To what extent are these changes due to demographic changes in the population of northern England? The average general practitioner's list size in northern England dropped from 2529 in 1969 to 2291 in 1980, a reduction of 9%. The 1971 and 1981 censuses may be used to give some indication of population change during the period between the two surveys. In the northern region the number of children under 1 year of age dropped by 21% and the number aged from 1 to 4 years by 25%. This undoubtedly accounts for some of the decrease

in home visiting of children. On the other hand, home visiting of patients aged over 65 decreased by 12% overall, although the number of people of that age increased by 13%. Thus although changes in population may have influenced the results they are obviously not completely responsible for the reduction in visiting.

The 1969 study included neither trainees nor doctors over 60 who had retired (in order to claim pension) and been re-employed after 24 hours. Inclusion of these groups in the 1980 study did not significantly influence the results. Indeed, close analysis showed that doctors who had been qualified 30 years or more conducted more visits and surgery consultations than the rest. The number of trainees taking part in the second study was so small that their exclusion from the survey produced no significant differences.

So why have home visits been reduced so much? Firstly, more people have cars to transport either themselves or members of their family and sometimes neighbours and friends to the surgery. Despite an increased centralisation of surgeries associated with the swing to group practice, their siting has usually been as convenient as possible for access by public transport. Flexible appointment systems, improved efficiency, and better organisation of the surgery all make attendances there easier and less time consuming and allow "same day" appointments for acute minor illness (flu, earache, abdominal pain, etc). Intermittent campaigns by the Department of Health and Social Security on television and in the newspapers have encouraged more surgery attendances. The more flexible arrangements for certification of absence from work also helped. A major factor in reducing the number of home visits has probably been the attempt by doctors, and reception staff under their instruction, to minimise what they perceive to be unnecessary home visits. In some practices a doctor "vets" all requests for home visits, especially those made after 10 am; this almost certainly accounts for the considerable variation in the number of home visits from one practice to another.

In 1969 GPs considered that 27% of patients requesting new visits could have come to the surgery, so a reduction in the number of "unnecessary" home visits might have been expected. Despite the fact that the number of new visits has fallen by 31%, however, GPs still consider 25% of new home visits to have been unnecessary. The gap between their expectations and those of the patient is almost as large as ever.

The number of home visits to children has undoubtedly decreased; has it gone too far and put the health of children at risk? We know of no evidence that the mortality or health of infants is related to the amount of home visiting by GPs. Nevertheless, we feel a little anxious about this, particularly with regard to children in low social class homes. In 1969 general practitioners thought that 55% of children visited at home should have come to the doctor, so presumably most reduction could be expected in this age group. This increases the necessity to ensure that the general practitioner's appointment system is sufficiently flexible to cope with sick children, "same day" appointment being essential.

The reduction in the number of home visits to the elderly is less than the reduction in visits to other age groups. Visits to the elderly comprised 34% of total visits and 68% of repeat visits; this is in line with the findings of a recent survey.⁵ Many of the patients with chronic illness were in this age group and the number of visits to these patients showed a corresponding reduction. Though visiting the chronically ill has a place in the surveillance of many of the disabling diseases we cannot cure, many elderly patients now receive more help at home from home helps and social workers, supervisory wardens, etc, and a far greater number now visit day centres and workshops than in the late 1960s. The "social" visit by the general practitioner is not, therefore, as important as it used to be. Caring for patients with chronic illness is essentially a team commitment, but with the reduction of patients referred to nurses from 14.8% in 1969 to 6.7% in 1980 there is obviously a need to reassess and revitalise primary health care team work.

In 78% of the total visits carried out in 1980 the GP had visited that family in that house before. Bearing in mind family mobility and the fact that some doctors would be deputising for absent partners and others may not have been in the practice for very long, GPs have a remarkable knowledge of their patients' homes. This will probably change drastically and the office orientated style of care so characteristic of North American medicine—and much criticised by the patients there—could well become the pattern in Britain unless a halt is called to this rapid decrease in home visiting.

Total workload as measured by the number of consultations with patients has certainly reduced in the north of England, but this is a poor indicator of effort; what transpires in the consultation is a much more important factor. General practice is responsible for more chronic illness than it was 11 years ago: it takes more time to review adequately a patient with diabetes or hypertension or to counsel a patient with a smoking problem than to treat a child with a cold. General practice is more concerned with preventive medicine than it was, and the advent of vocational training for general practice absorbs considerable time for many GPs. General practice is changing—it has changed considerably in the 11 years covered by these surveys and no doubt will change even more in the future.

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Clinical curio: acidosis and hypoglycaemia in malaria

Falciparum malaria may present a confusing picture as the following case illustrates.

A 19 year old Zambian Bantu woman was admitted to Wusikili Hospital, Kitwe, on 3 April 1980 complaining of headache and chest pain. She was eight months' pregnant. Her temperature was 36.2°C, and she was pale, jaundiced, and dyspnoeic. A sinus tachycardia was present, and her blood pressure was 130/80 mm Hg. A blood slide showed numerous ring forms of *Plasmodium falciparum* and scanty gametocytes. Results of investigations were: haemoglobin concentration 5.0 g/dl, white blood cell count $31.1 \times 10^9/l$, with 74% polymorphs and 26% lymphocytes, and platelet count $198 \times 10^9/l$. Haemoglobin electrophoresis showed that she had normal haemoglobin. Serum biochemical values were: urea 18.4 mmol/l (111 mg/100 ml), sodium 122 mmol/l (mEq/l), potassium 4.4 mmol/l (mEq/l), and glucose 0.90 mmol/l (16.2 mg/100 ml). The arterial blood pH was 6.86 with a pO_2 of 105.2 mmHg, pCO_2 of 14.0 mm Hg, and standard bicarbonate of 2.9 mmol/l (mEq/l).

Malaria complicated by sepsis was suspected, and the patient was treated with transfusion, intravenous chloroquine, and ampicillin. Sodium bicarbonate was infused to try to correct the acidosis. Despite this the patient's condition deteriorated, and she died 14 hours after admission. Post mortem examination showed widespread deposition of malarial pigment in the internal organs, but no sign of sepsis or any other intrinsic disease.

A search for further information on the mechanisms implicated in the production of hypoglycaemia and acidosis in malaria has yielded negative results.—C W S FISHER, locum consultant physician, Aylesbury.