

PRACTICE OBSERVED

Practice Research

Equity and consultation rates in general practice

MILDRED BLAXTER

**Abstract**  
An attempt was made to distinguish different types of consultations and their variation by social class by a secondary analysis of the second national morbidity survey in general practice. The greatest difference in consultation rates, comparing patients in social classes IV and V with those in classes I and II, was for life threatening, urgent, chronic, or incapacitating conditions, thus matching the presumed differences in need. For more trivial conditions and for symptoms not specifically diagnosed the difference between social classes was less, and for married women in various ways consultation rates suggested less care seeking by patients in the lower social classes.

The different uses made of primary care is more illuminating and more relevant to the question of equity in use of services than crude overall consulting rates by social class.

Introduction

In the debate about equality of access to services in the National Health Service consultation rates in general practice have always been an unsatisfactory index. Since equality of access is a fundamental principle, and since consultations in primary care are the first and often the only treatment sought for most episodes of illness, it is important to know whether general practitioners are consulted with equal ease and readiness by patients in all social classes. The interpretation of rates of usage has, however, long been controversial.

School of Economics and Social Studies, University of East Anglia, Norwich NR4 7TJ  
MILDRED BLAXTER, MA, research fellow

Simple rates of consultation in general practice are available from the *General Household Survey*, from the surveys of *National Morbidity Statistics in General Practice*, and from more limited studies. The evidence from the two major surveys has always shown that, for adult men at least, rates of consultation rise with falling social class. Evidence such as this led Ren to suggest that equality of access had been achieved in the NHS, and that indeed patients in the lower social classes made more use of the health service than those in the upper social classes.<sup>1</sup> The crucial question in the relation of use to need, however, Attempts have been made to derive ratios of use to need by social class, usually making use of the data from the *General Household Survey*. Forster found appreciable declining trends with social class where the measure of need was self-declared chronic sickness or sickness absence from work or school, but no noticeable trend when the measure was acute sickness.<sup>2</sup> He concluded that "the apparent advantages of the higher consultation rates in the lower social classes . . . are eliminated or reversed when morbidity is also considered."<sup>3</sup> Broxton derived use need ratios of 1.53 in socioeconomic group 1, declining to 0.57 in group 6, using "restricted activity days" reported in the *General Household Survey 1972* as the measure of morbidity, and in the Black report a similar, though less pronounced, pattern using data for 1974-6 from the *General Household Survey* was reported.<sup>4</sup> It has been concluded that equity of use in primary care has not been achieved since the lower social classes seem to make less use of services for any given amount of morbidity.

Collins and Klein, however, pointed out that these crude indicators of use and need do not deal with the same individuals in the numerator and the denominator. "Those who reported no morbidity at all are the largest group of the population, over 70%." A reanalysis of the raw *General Household Survey* data (1974) showed that though only 6.6% of this group were users of primary care they were in fact the greatest users simply as a function of the size of the group. There was evidence of an upper class bias among men users in this group, perhaps because those in higher socioeconomic groups use primary care more for prevention. But for the groups reporting either acute or chronic

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illness variations in consulting rates were not systematically related to social class. Indeed, for those who identified themselves as chronically ill, the lower socioeconomic group had higher rates than their counterparts in other groups, which may suggest. Once again, the authors concluded that "equity in terms of access appears broadly to have been achieved."

None of these rates or ratios is satisfactory. A "consultation" in primary care covers many different things, which may be confused in aggregated rates. Consultations may be for trivial or serious conditions and may include antenatal care, preventive checks, or administrative procedures as well as illnesses. Any one patient may consult many times for a single episode of disease, or consult once for many different episodes. Large national samples inevitably confuse all these things, though differences between individual doctors may be smoothed out. On the other hand, it is doubtful whether generalisations may be made from more detailed studies of single practices since the doctor is an important variable in the determination of consultation rates.<sup>5</sup>

This analysis is a preliminary attempt to make these rates more meaningful. I suggest that it is more profitable to consider, as far as possible, the content or nature of consultations and derive a series of different rates for different types of consultations. The analysis is based on the second morbidity survey in general practice, analysed by diagnosis and by age, sex, and social class.<sup>6</sup> The population covered represents almost 230 000 people years at risk. These patients were linked by the Office of Population Censuses and Surveys individually (but with strict confidentiality) to the 1971 census records to assign occupation or social class as accurately as possible. (Matching was impossible for about one fifth of the population, which was composed disproportionately of children, elderly people, and those in single households. This missing proportion is unlikely to affect greatly the rates discussed here.)

The 60 doctors who took part in the morbidity survey were volunteers and were drawn mainly from practices that used diagnostic indexes or practice registers. It was acknowledged that they might be "selected" in various ways, and, indeed, in comparison with national data, they had certain "favourable" characteristics, which was, however, an advantage rather than a drawback for the analysis.

Patients' consulting rates, expressed as standardised rates, rose regularly from social class I to social class V for men aged 15-64, though only marginally for married women. In the analysis by diagnosis some of the major International Classification of Diseases categories showed steeper or more regular gradients than others—for instance, "diseases of the digestive system" varied regularly and steeply by social class; "endocrine, nutritional, and metabolic disorders" varied irregularly; "diseases of nervous system and sense organs" had a reverse social class gradient. These categories, of course, include a variety of types of condition. For example, "diseases of the nervous system and sense organs" includes epilepsy, but it also includes, as a very common cause of consultations, wax in the ear. "Diseases of the respiratory system" includes many serious conditions, but they are overshadowed in terms of numbers of consultations by upper respiratory infections. If the nature of the consultations is to be considered it is necessary to re-order the individual disease categories into other types of categories. Only then is it possible to judge meaningfully whether patients in upper or lower social classes make "more" use of primary care.

Method

The groups analysed were men aged 15-64 years, classified according to their occupation, and married women of the same age group, classified by their husband's occupation. These account for 65% of all men in the morbidity survey and 46% of all women. Children, elderly people, and single women are of course no less important, and different trends might be found to apply in these cases. Adult men and married women were, however, the simplest groups to select for this preliminary study.

Social classes I and II and social classes IV and V were aggregated for two reasons. Firstly, social classes I and V are the smallest, and numbers of consultations for individual conditions in these classes are often too small to show appreciable differences. The common comparisons between the mortality ratios which apply to the extremes of social class, considering causes of death for which numbers are relatively few, often suffer from this fault. Secondly, it may be argued that there is often little difference in the lifestyles, behaviours, and economic circumstances which may be relevant to health between social classes I and II and between social classes IV and V. The aggregated class I-II comprises 27% (men) and 30% (married women) of the relevant study group, and the aggregated class IV-V 22% and 21% respectively. Thus the comparison is crudely between the top and bottom quartiles of the population.

All of the individual diagnoses selected for reordering into new categories (roughly 120) accounted for at least 0.5% of all consultations for the given age-sex group—that is, omitting only the rarer diagnoses for which numbers are small. The selected diagnoses together accounted for approximately 94% of all consultations. Some of the categories are self-defining—for example, examination for administrative purposes, prenatal and postnatal care, and contraceptive advice. Some categories are defined by reference to other data—for example, diseases for which mortality differentials by social class are greatest or least. The category of "symptoms not clearly diagnosed" was selected simply by common sense. Most of the categories, however, depend on the judgment of the relevant experts, general practitioners.

A list of the diagnoses was presented to nine general practitioners, who were asked to tick each one if they thought it should be categorised as "life threatening," "could be self treated," "typically requiring specialist referral," and so on, for patients aged 15-64. It was emphasised that the doctors were to judge only that for a large number of patients the diagnosis was typically in this category. When there was a two-thirds agreement among the doctors categories were made up, any for which opinions differed widely being omitted. Except in obvious cases, these categories are not mutually exclusive. "Acute myocardial infarction" is life threatening, urgent, incapacitating, and requires specialist referral. Other diagnoses, however, might be urgent without being life threatening, or incapacitating without being urgent. The ratios presented are alternatives not components of one total. Their relative importance is given quantitatively in tables I-V by showing the proportion of all patients consulting accounted for by the diagnoses put in each category.

Results

Overall ratios comparing social classes I-II with IV-V show the familiar gradient given in table 1. "All diagnoses," however, includes examinations for administrative purposes, clinic attendances, etc., which cannot be included among consultations seeking help for illness. If these are excluded table 1 shows that the gradient suggesting that patients in the lower social classes seek help more often becomes more pronounced.

"Not sick" consultations there is a pronounced bias in favour of the higher social classes, except for men (table 11). These account for a smaller proportion of consultations than for men for women, while women in other social classes may obtain them from other clinics. Examples of items included in the "not sick" category show that the category as a whole is too disparate to be included in the incidence about differentials in overall consulting rates. Consulting ratio for medical examinations for men are low in both social classes I-II and IV-V because the same conditions occur in social class III of skilled non-manual and skilled manual workers.

TABLE I—Overall consulting ratios for men and married women in social classes I-II and IV-V\*

	Standardised patients' consulting ratios	
	Men aged 15-64	Married women aged 15-64
I-II:IV-V	1.15 (15)	1.05 (15)
All diagnoses	1.05 (105)	0.94 (104)
All diagnoses excluding the "not sick" administrative, prophylactic, etc.	0.87 (106)	0.72 (105)

Table III gives ratios for a series of different categories of diagnosis. The first three may be expected to overlap to some extent, but all represent consultations that are "legitimate"—doctors agreed that these are proper occasions on which their help should be sought. All these categories show steep gradients between social classes, especially for men. The third category—conditions that are typically incapacitating or painful—is most important in numbers, since pain and incapacity commonly trigger a consultation.

The category with the greatest social differential is "urgent" because of the quantitative importance of fractures, lacerations, and other accidental injuries. The "life threatening" category contains some diseases where there is indeed a steep class gradient in mortality—for example, pneumonia, bronchitis, and emphysema—but this category also includes conditions where class differentials in mortality are small—for example, neoplasms and some diseases of the circulatory system. In the category of "functionally incapacitating or painful" diagnoses referring to the musculoskeletal system and conditions presumably judged to be painful though not necessarily serious, such as migraine and haemorrhoids, are prominent. Indeed, some conditions in this category overlap with the next group since the general practitioners judged that, though painful or incapacitating, they were suitable for self treatment.

Other categories in table III represent approaches to the defini-

TABLE II—"Not sick" consultations

	Standardised patients' consulting ratios	
	Men aged 15-64	Married women aged 15-64
I-II:IV-V	1.11 (14)	1.11 (14)
Prophylactic procedures and other "not sick" consultations accounted for by this category	107.98	106.95
Examples of diagnoses included in this category	(7) (5)	(4) (11)
Prenatal and postnatal care, contraceptive advice, examination of all patients consulting accounted for by this category	103.98	102 (10)
Examinations for administrative purposes, clinic attendances, etc.	91.80	100.97
Diagnoses for which mortality differentials are greatest or least	179.48	150.96
Inclusion for typhoid	122.06	120.96

TABLE III—Consultations for various categories of diagnosis

	Standardised patients' consulting ratios	
	Men aged 15-64	Married women aged 15-64
I-II:IV-V	1.11 (14)	1.11 (14)
Life threatening conditions of all patients consulting accounted for by this category	94.114	99.112
Conditions requiring urgent attention	(9) (10)	(5) (7)
Fractures, lacerations, etc.	131.121	101.108
Functionally incapacitating or painful conditions	(21) (27)	(17) (19)
Conditions which could be self treated	90.109	95.104
Symptoms not clearly diagnosed	152.132	121.246
Diagnoses related to gynaecology and fertility, excluding prenatal and postnatal consultations	101.99	117 (15)

\*The totals of "all patients consulting," in which percentages are based on all the ratios are: men 111 188.15; IV-V 57 492; married women 111 25 759; IV-V 20 181.

TABLE IV—Consulting ratios and mortality ratios

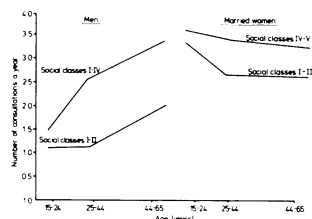
	Standardised patients' consulting ratios	
	Men aged 15-64	Married women aged 15-64
I-II:IV-V	1.11 (14)	1.11 (14)
Conditions where mortality differentials are greatest or least for this age group	79.125	88.109
Conditions where mortality differentials are not great or are reversed for this age group	(9) (12)	(11) (13)
Conditions where mortality differentials are not great or are reversed for this age group	90.103	88.109
Diagnoses for which mortality differentials are not great or are reversed for this age group	14.5	14.5

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the difference was marginal. It is possible that the illnesses in social class IV-V are more likely to be chronic and require more frequent consultation, and in considering the different types of condition that are categorized in table III it may be taken into account. Average numbers of consultations per episode are likely to be nearer one for prophylactic procedures and examinations, and they are also low for such things as diseases of the skin, upper respiratory infections, and minor symptoms. For other categories of disease—menstrual disorders, for instance, or neoplasms—averages are high for all social classes. Whether the average number of consultations per episode is high or low for any given group of conditions, however, the difference between social classes applies only to men. For married women the difference is reversed for some conditions, with more consultations per episode in the higher social classes. The explanation may be the greater likelihood of men in manual occupations requiring (at that period) certificates for employment.

Actual consultation rates, expressed as numbers of consultations per person a year for all illnesses but excluding, for instance, administrative and prophylactic consultations, are shown in the figure. The social classes are ordered in the expected way, and numbers of consultations increase for men as people age. The difference between social classes is least at younger ages and greatest in the group 25-64 years. The patterns for men and for women are different: for married women numbers of consultations tend to decrease with age, even though antenatal and postnatal care and contraceptive advice or prescriptions are excluded in these rates.



Number of consultations per person a year ("illness" consultations only, excluding, for example, those for administration, prophylaxis, prenatal and postnatal, and contraceptive).

CONDITIONS REQUIRING LONG TERM SUPERVISION OR SPECIALIST REFERRAL

There are other explanations for the widening of social class differentials (for men) when numbers of consultations are considered compared with patients' consulting rates. Doctors may ask for their patients in social class IV-V more often for the same episode of illness, or the patients may choose to return more often, or their illnesses may be more serious or chronic conditions which require more consultations. The categories in table III suggest that the last of these explanations has some weight. A category of "symptoms typically requiring long term supervision," selected by the general practitioners, suggests the same (table V). A final category of "conditions typically requiring specialist referral," shows similar ratios. Actual referral rates to specialist care for all diagnoses are shown for comparison.

Discussion

Where differentials in consulting rates for specific conditions are noted between social classes there is no way of showing conclusively whether one group has a greater incidence or prevalence of a condition, whether one group has a greater propensity to consult for that condition, or even whether there is any

TABLE V—Conditions requiring long term supervision or specialist referral

	Standardised patients' consulting ratios	
	Men aged 15-64	Married women aged 15-64
I-II:IV-V	1.11 (14)	1.11 (14)
Conditions typically requiring long term supervision	83.116	88.108
Conditions typically requiring specialist referral	(15) (17)	(12) (14)
Conditions typically requiring specialist referral	83.118	89.107
Actual referral rates for all diagnoses	80.88	89.09
Standardised referral rates for all diagnoses	88.110	100.103

ration of more trivial conditions, where a consultation may not be thought essential. Over 30% of all conditions categorized were placed under "could be self treated." The numbers of consultations were high for nasopharyngitis, laryngitis, intestinal infections, cough, catarrh, influenza, back pain, lumbago, wax in ear, insect bites, heartburn, flatulence, constipation, and, for women only, tension headache, rash, and obesity. For some of these, such as wax in ear and catarrh, there was a reverse class gradient, but the greater number of consultations in social classes I-IV for some diagnoses—for example, nasopharyngitis, back pain, and, for women, obesity—means that overall the "self treated" category shows a higher consulting rate for patients in the lower social classes, though the differential is not as great as is the case in the categories of more serious diseases.

A similar but steeper gradient is shown for the category of "symptoms not clearly diagnosed," which overlaps with that of previous one but was defined differently: not validated by the general practitioner panel but formed by selecting a priori those consultations in each International Classification of Diseases category which were undiagnosed or incompletely diagnosed conditions—together with "diagnoses" that are simply a description of symptoms—for example, vertigo, headache, colic, rash, pain in the joint—and others, such as "physical disorders of presumably psychogenic origin." These account for 12.15% of all consultations. Consulting rates for these undiagnosed symptoms were much higher in social classes IV-V for both men and married women. Consultations for all gynaecological conditions and conditions related to fertility, excluding contraception and prenatal and postnatal care—that is, a general category of gynaecological illness or malfunction—accounted for over 15% of all consultations by married women.

CONSULTING RATIOS AND MORTALITY RATIOS

These analyses may say nothing directly about the relation of consulting rates to "need," though "need" is likely to be more urgent in the first three categories in table III than in the following two. Another way of inferring need is to consider, for each category, the risk that a mortality is attached, whether consulting rates match mortality ratios. A selection of the 15 specific diagnoses that are also named as cause of death in mortality statistics, for which the mortality differentials are greatest for men between social classes, results in the consulting ratios given in table IV. Selection of diseases where the mortality differential is reversed or is smaller than the consulting ratio difference. Though the ratios change in the expected direction for men, for married women the risk of mortality makes little or no difference. In other words, compared with other social classes married women in social classes I-II consult just as much for conditions where their mortality rates are comparatively low, and women in social classes IV-V consult more for the diseases where their mortality rates are high for them than they do for diseases where the risk is spread more evenly.

EPISODES AND CONSULTATION RATES

So far the results of the analysis have related to rates or ratios of patients consulting, which seems most relevant to whether patients in different social classes are more or less likely to consult for a particular illness. These are not, of course, the same as consultation rates, or the numbers of consultations made by an individual. The numbers and differentials are greater because an individual may be consulted with perhaps several times for one episode of a given condition and perhaps only once for each episode. Overall, men in social class IV-V consulted more often for any given episode. For married women

possibility that doctors are treating social groups differently in the diagnosis that they give to similar conditions. This is a major stumbling block that has complicated the discussion of "social class" in general practice. The methods adopted, however, though still crude, makes it easier to distinguish the various types of conditions about which infereces may be made.

By categorising conditions in the ways shown in table III it seems that the "need" consultations for men are noticeably more for more serious and urgent conditions, suggesting that "need" is indeed greater. A higher proportion of consultations for social classes IV-V, 27% compared with 21% in social classes I-II, is for conditions that are typically incapacitating or painful. Comparing mortality ratios with consulting rates for conditions carrying a mortality risk also suggests that for more serious conditions there may be a rough match between need and use of primary care.

For married women differentials are similar though not so pronounced. In the youngest age group of 15-24 and for gynaecological conditions women in social classes I-II seem to be high consultants.

The general practitioners categorised a high proportion of the diagnoses offered to them as amenable to self treatment. Many diagnoses so labelled accounted for large numbers of consultations—for example, nasopharyngitis—with the result that over 30% of all patients consulting had diagnoses in this category. This may be compared with the finding of Cartwright and Anderson, for instance, that their sample of doctors believed that roughly a third of all surgery consultations were trivial or unnecessary.<sup>7</sup>

The social class differential for these trivial conditions is smaller than for serious conditions. These symptoms are likely to be only a small proportion of those that are actually experienced.<sup>8</sup> Common sense suggests that many of the conditions in this category will be prevalent in all social classes. Indeed, for many of the conditions consulting rates are higher in social classes I-II. This only a slightly higher propensity to consult for some common "trivial" diagnoses—principally upper respiratory infections—or, perhaps, a slightly greater incidence of these conditions, accounts for the small overall excess in social classes IV-V.

There is a considerable differential for "symptoms not clearly diagnosed," which overlaps with "self treatable." This may indicate an effect of the social class of the patient on the doctor's diagnosing behaviour, or on the pressure exerted by the patient for a definitive diagnosis. All the vague and perhaps dismissive diagnoses—for example, cough, not otherwise diagnosed; back pain; tension headache; "redness of the eye"; or "symptoms incompletely diagnosed"—are noticeably more readily applied to patients in social class IV-V. Patients in lower social classes may experience more symptoms that cannot be clearly allocated to a diagnosis of disease or may be more ready to consult for such symptoms. For specific complaints, such as back pain, a greater incidence in manual workers may be expected. On the other hand, examining other components of this category suggests a differential in diagnosis made by general practitioners. The social class I-II:IV-V ratios for "tension headache," for instance, were equal, but for "headache not otherwise diagnosed" were 0.11:0.15.

Whether the manner, content, or outcome of consultations differ by social class was not considered here, though there is evidence of the greater likelihood of middle class patients having doctors with "desirable" attributes, or of a typically longer time devoted to a consultation for patients in social class I-II.<sup>9</sup> Referrals to specialist care were found to be highest among patients in social class I and lowest in those in social class V, though the reverse has also been reported.<sup>10</sup> In these data more men in social classes IV-V were referred to specialists, but the differential was not great enough to match the consulting rates for the type of condition defined as typically meriting referral: in other words, suggesting or a referral rate might not reflect need. For married women the suggestion is strong.

**Conclusion**

The general conclusion must be that for men the higher rates of consultation in social classes IV-V are strongly related to greater need. Men in these classes experience more chronic illnesses that require more consultations; they also suffer from more conditions that are urgent or life threatening. Their higher consulting rates result only a little from help seeking for trivial symptoms, though this group of patients may either experience more conditions that are functionally incapacitating but not serious or take such conditions more seriously. Manual workers may seek relief more readily for symptoms that threaten the capacity to work or make it painful. On the other hand, different groups undoubtedly have a different perception of the importance of particular symptoms. More research is required.

For married women the picture is more confused, even when attendance at clinics and fertility related consultations are excluded. Categorising women by their husband's social class produces smaller class differentials for them than for their husbands. Nevertheless, the small difference between social classes for conditions categorised as "urgent," the equal number of consultations per episode (even though the chronic conditions which require repeated consultations and long term care are socially differentiated for women, as they are for men), and the declining consultation rates with age (even though these same chronic conditions must become more prevalent) suggest that consulting patterns may not match need. Referral to specialist care, in relation to presumed need, seems to be biased in favour of social classes I-II. Consultations for preventive care (as for men) and gynaecological conditions (for women and malfunctions, as well as for "not sick" care) show deficits in social classes IV-V. Perhaps more for women than for men, the results of this quantitative analysis suggest that the more important and interesting questions concern the qualitatively different use that social classes may make of primary care.

I thank the panel of general practitioners who participated in the categorising of diagnoses; Professor W H Holland, Dr D L Crombie,

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**Instant age-sex register**

JOHN HENDERSON

**Abstract**

An age-sex register for use in general practice was obtained directly from the family practitioner committee computer by direct transfer of data to a microcomputer.

**Introduction**

A desire to obtain an age-sex register for use in my practice and two years of experience with microcomputers led me to consider trying to obtain the registration details of all our patients

Hilary Cottage, Falford, Gloucestershire GL7 4HT  
JOHN HENDERSON, MRCGP, MRCP, general practitioner

directly from the family practitioner committee computer. A traditional age-sex register is usually in the form of a card index. It is set up by clerical staff in the surgery or family practitioner committee who work through the medical records or registration cards and enter the data manually onto preprinted cards. This is slow. My family practitioner committee had already computerised all these data and were able to print a complete list of patients, either on paper or a list or directly onto cards for filing. To obtain maximum benefit from the register and use the fast data retrieval capability of the computer, the data would need to be typed into the surgery computer. As this laborious task had already been done at the family practitioner committee I intended to avoid repeating it. Most computer systems in surgeries have as their database an age-sex register which requires several months of typing to install. I asked the family practitioner committee if they could supply a tape or floppy disk containing the data. The many different disk formats made this more difficult than a direct transfer of data from the family practitioner committee minicomputer to my own microcomputer.

**Method**

I have a Tandy TR80 Model 1 microcomputer with 48K of memory, expansion interface, twin floppy disk drives, and printer. A microcomputer system smaller than this is unlikely to have the capacity for useful communication with a minicomputer such as the DEC PDP-11 used by the family practitioner committee. In theory any two computers may send information to one another by means of an RS232 interface. To communicate, both computers also need to run appropriate programs to control the sending, receiving, and writing to the data to disk. The family practitioner committee provided a program to select patients registered with the three partners and sort them into sexes. I have an inexpensive communications program which may be obtained commercially to receive and store the data.

The data obtained should be in a format that may be directly used. I wanted the following fields of data: surname, forenames, National Health Service number, date of birth, sex, date added to list, address (2 lines), postcode, whether on the dispensing list, I can add other items to a total of 40 when required. The fields are not of fixed length but cannot exceed 255 characters. To my surprise I found that there are three sexes: male, female, and indeterminate. There were seven indeterminates in a population of 6000 patients. They were all patients whose names gave no clue as to their sex. We easily corrected the family practitioner committee records but in areas where there is a large population of immigrants with unusual names this might be difficult. The average size of the data record for each patient was 95 characters. The family practitioner committee developed a program which was sent to me in a format accessible by my computer using another commercially available program for data management.

Two options were available. The first was to communicate by telephone using a modem. A modem converts data signals into a form transmissible by ordinary telephone lines and records them at the other end. The speed of data transmission varies and is expressed as the "baud rate." The usual range is from 300 to 9600. At a rate of 300 baud the details of one patient would take three seconds to transmit. This would mean a five hour telephone call for 6000 patients using a standard British Telecom modem. This would be expensive, and particularly so if errors occurred and the call had to be repeated. At a rate of 9600 baud records for about 10 patients could be sent a second, but the cost of a more complex pair of modems was not justified. The alternative was to use my computer to the family practitioner committee for a direct link. Microcomputers are extremely portable and as we expected practical problems this second option was taken.

The project was initially beset with technical troubles. My RS232 interface, though new and unused, was faulty and this resulted in total failure at the first attempt. The second attempt proved that communication was possible, but only at slower rates of data transfer than I had hoped for. We found that occasional characters of information were "dropped" and lost at baud rates of more than 2400. The final attempt was completely successful and in three hours the complete age-sex register was written to disk. Most of this time was spent checking the files after transfer to avoid the need for another attempt.

**Confidentiality**

Although the information held at the family practitioner committee is not clinical, those of us who use computers have a responsibility to ensure the security of the data. My access to the family practitioner committee computer came about through personal contacts with the administrator and his staff. I do not expect freedom of access to be given to all general practitioners and their staff without close supervision. One of the risks containing data are held in the surgery then security is less of a problem. It requires more skill to extract information from disks held in the office than to read the registration details written on the front of a medical record envelope. Disks should not be sent by post, and direct telephone access to our own computers by outside agencies should never be permitted except under direct control.

**Discussion**

The future use of the age-sex register will depend on keeping it up to date. The results of the register (as well as summaries by Fraser and Clayton) showed that as the years pass the register

gradually becomes less accurate. With the daily births, deaths, and new registrations of patients, it can never be completely accurate without exceptional and foolproof administrative procedures in the surgery. I do not intend to divert any of my staff to this constant chore. At intervals (as often as or as little as required) a relatively short telephone call direct to the family practitioner committee using a modem will produce a data file containing new or deleted patient registrations.

One disappointment has been the number of errors found in the patient details: wrong addresses, incorrectly spelt addresses, and patients not on the dispensing list who should be and vice versa. Spending some time on the correcting of these should improve the accuracy of records both for us at the surgery and for the family practitioner committee. Since a computer is an essential ingredient of repeat prescriptions printed by computer this work will have to be done.

I understand that the patient data was transcribed for the family practitioner committee by a typing bureau and not by the staff. I feel sure that local knowledge would have led to more correct spelling of village names.

I thank the family practitioner committee at Gloucester for their enthusiasm and help, Rob McKenzie from the Exeter Health Computing Project who wrote the software for the family practitioner committee, and Dr Guy Knights who helped me with the whole project.

**Reference**

- 1 Fraser RC, Clayton DG. The accuracy of age sex registers: primary medical records and FPCC registers. *J R Coll Gen Pract* 1981;31:410-9.

(Accepted 9 April 1984)

**ONE HUNDRED YEARS AGO** Cruelty to children—Either general publicity is given to these pitiable cases, owing, perhaps, to a healthy growth of opinion among the poorer classes, or they are greatly on the increase. We note two cases recently reported in the daily journals, testifying to extraordinary cruelty and callousness on the part of women, who, perhaps from the nature of things, seem to excel men in, so to speak, torturing helpless children. In one case a woman was charged with ill-using her nephew, aged seven years. Persistent cruelty to this poor boy had been noticed by a woman living in the same house, who very properly apprised the police of what was going on. The child was taken to the workhouse, and according to the testimony of the medical officers, "was a healthy, well-nourished, and stout twenty-four pounds, and was in a condition produced by prolonged cruelty and starvation. In another case, a woman was charged with deliberately burning the fingers of one of her little daughters, aged 8 years, by pushing her hand on to the bars of the fire-grate while the fire was burning, because the child had been guilty of some petty offence of helping her mother to sugar. The other child showed marks of stripes from a cane. Such a society as that proposed by Lady Burdett Courts would doubtless be useful in similar cases, if it could be arranged that such a society would award the arrest and custody of such cases, and the prosecution of the offenders. (*British Medical Journal* 1884;1:122.)

**Correction**

**Mental illness in inner London**

In this paper by Dr C M Harris (12 May, p. 1425) it was incorrectly stated that in the second National Morbidity Study 1970-71 general practitioners were allowed to record only one diagnosis for each consultation; in fact they could record as many diagnoses as they wanted.

**Rethinking Established Dogma**

**Health centres**

ANDREW SMITH

The concept of health centres was first mooted in the early years of the century as buildings which would provide comprehensive community health care as well as treatment of disease. It remained no more than an idea until resurrected by the Dawson report on *The Future Provision of Medical and Allied Services* in 1922. The centres were intended to provide personal health services, including antenatal care, child care, and health education. They would be staffed by several general practitioners, midwives, and nurses working together, thus overcoming the isolation that had stultified the development of general practice. There would be inpatient beds for the general practitioners, who would, however, continue with private practice in their own surgeries outside the health centres.

There was little enthusiasm for this hotchpotch, so the concept lay dormant until 1942 when the BMA's medical planning committee resurrected it. Their health centres would house six to 12 general practitioners, each with his own consulting rooms and a common operating theatre for minor surgery. They would have a direct link with hospitals where beds might be put at their disposal. Antenatal, postnatal, infant welfare, and school medical services would be provided. Two years later the government's white paper of 1944 stated that modern purpose built premises were a necessary feature of the proposed National Health Service and health centres would be the most effective way of providing them. Section 21 of the National Health Service Act decreed that the local authorities should provide, equip, and maintain health centres, but in 1948 the government advised the local authorities to hold back on building them. They complied with that effect that by 1959 only 23 had been built. Most general practitioners regarded them with suspicion, disliking their impersonal appearance and mistaking the local authorities. They feared that working in them would undermine their status as independent contractors and lead to a state salaries system.

In 1966 the Family Doctors' Charter caused a softening of attitudes and the reimbursement of rent and rates of health centres encouraged general practitioners to go into them. By 1970, 8% of general practitioners were working in health centres and more were being planned. Premises for group

practice were also being built but, according to the 1971 sub-committee of the standing medical advisory committee, they were not being designed to offer as comprehensive a range of services as health centres did, especially in preventive and community services. This was hardly surprising, when local authorities were reluctant to attach health visitors and district nurses to group practices. Nevertheless, the subcommittee felt that "at present" there was something to be gained by having both sorts of premises.

**No alternative for us**

My partners and I went into a health centre because there was no alternative. Our practice was based on several villages, the largest of which, Whickham, began to expand in the 1950s because large private housing estates were built in the field around it. Two partners had their surgeries in their own houses, which were inherited from the last generation, and the other two in converted houses occupied by caretakers. We were already functioning as a group practice in all but sharing the same premises. We met each day in the original practice house where my family lived, in the centre of Whickham and accessible to the surrounding villages, and close to both the cottage hospital and the chemist shop. Its surgery had been modernised in the 1950s but the waiting room was soon found to be the steady influx of new patients. In 1960 we built a group practice centre onto the side of the house, financed by a group practice loan and the bank. This had rooms for a secretary and receptionists, was the first purpose built group practice centre with an appointment system in the north east of England, and was comfortable, informal, and relaxed to us, or would when we had paid off the loan.

But we had not believed how great the expansion of Whickham would be. We took in more partners and more receptionists and had district nurses, health visitors, and midwives attached to us. We soon had to add prefabricated extra rooms to the centre to accommodate them all. After a few years we found ourselves more overcrowded than we had been at the start. The only suitable piece of land in what was now a town with supermarkets and a shopping centre was the kitchen garden of the cottage hospital. The regional hospital board could not tell us to independent contractors like us but were prepared to let the local authority build a health centre on it.

So it had to be a health centre. Not the mausoleum like structures springing up all over the time, but one which would not destroy the personal relationship built up with our patients over three generations. We had learnt from the design of our group practice centre and had a shrewd idea how to improve on it. We visited several health centres built by our own and other local authorities and realised that none of them would do. Sick Health Centres by J Gerald Beales had not yet been published, but we saw in the health centres we visited most of the horrors described in that classic work. No doctor should move into a health centre without reading it carefully.

Whickham Health Centre, Rectory Lane, Whickham, Newcastle upon Tyne  
ANDREW SMITH, MB, FRCGP, general practitioner

**Method**

When designing our group practice centre we told our architect what we wanted and he translated it into a modern building. It had a batwing roof and was in complete contrast to the old stone house to which it was attached. My family and I liked it but some of the older villagers thought that it spoiled the house. But it did preserve the old doctor-patient relationship, partly because the consulting room in the gable end of the house stayed much as it has always been. We knew, of course, that with a medical officer of health and a county architect who had already built several health centres we would have difficulties. And so it turned out. They produced an unworkable ground floor and added a second story with rooms earmarked for local authority employees. We did not want them. We needed two suites of consulting examination rooms bigger than the usual because medical students attached to the practice sat in on surgeries two mornings a week. Quite impossible said the planners. The worst feature of all was the common room. We were by now a partnership of eight with a succession of trainees as well as frequent incursions of groups of students, not only sitting in on surgeries but coming for tutorials and seminars. We needed a common room of our own. Quite impossible. Did we not realise that health centres were supposed to promote team work and that a room common to everybody in it would provide a focus for team work? We pointed out that we had practised teamwork for some years in our group practice centre, that cramming the three separate disciplines that made up the primary health care team into one room would cause chaos, with each group retreating to its own quarters, which would be the antithesis of teamwork. They would not budge. Nor would we. So the Department of Health and Social Security was called in to referee. The medical officer responsible for health centres, the chief architect, and the chief nursing officer, the members of the county planning team, and all the partners met in Durham County Hall. After much discussion we gained nearly all our points. But not a separate common room. A single common room for everybody was the Ark of the Covenant, the holy of holies. It was health centre dogma. Even infidels must respect it.

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**Some luck**

Then we had two strokes of luck. Local authority reorganisation changed boundaries and we found ourselves in County Durham no longer but in the metropolitan borough of Gateshead. Its medical officer of health, now called area medical officer, had worked in general practice, knew how it worked, and accepted all our points. There was still the county architect, to be dealt with because he had to finish the job he had started before re-organisation. Our second stroke of luck was that he had moved on and his successor had no preconceived ideas. If we would tell him what we wanted he would do his best to translate it into

bricks and mortar. We promptly removed the second floor then set to work again on the ground plan with its vital consulting rooms.

It took some time and many meetings with different planners, but eventually we moved into a workable health centre with plenty of space. It was a health centre, not a mausoleum like most pictures on the walls the building lacked warmth and character. We were told that we must not put up pictures, an instruction we ignored, and promptly filled our rooms with our own pictures, and patients and visiting Hogarth prints to put on the walls of the waiting room. We were told that we must not change the curtains, the colour of which jarred on some of us, so we promptly replaced them with curtains of our own taste. The common room was the disaster we had feared and for the first few weeks we felt uncomfortable and increasingly paranoid as strange persons who did not work in the centre, later identified as junior administrators, wandered in and out during coffee breaks, sitting about drinking tea, chattering, and smoking heavily. We solved this by fixing different times for each group working in the health centre to use the common room.

There were many petty annoyances in the early days. When the consulting room door didn't shut, that is, if I got the hospital porter to fix it, only to be threatened with strike action if this happened again. The time switch for the heating system was set for office hours: 9 am to 5 pm. The first surgery started before 9 am and the evening surgeries went on until 7 so we readjusted the timer to come off at 7 pm, again to be threatened with strike action because it was the job of an electrician, who must be summoned from the district general hospital. The keys to the health centre were entrusted to the cleaners, who in theory would be first in in the morning and last out at night. Giving each doctor a separate key, we were told, would constitute a security risk. How would the duty doctor get in at night for drugs or patient medical records? We were given an extra key for the duty bag. One partner who habitually started his morning surgery before the cleaners arrived was grudgingly allowed a personal key. These, however, were pinpricks which annoyed us at first but which we soon learned to tolerate. A major snag was the discovery that the consulting room doors were not soundproof, although we had made a particular point of soundproofing. After a suggestion by the architect that piped music or fishbaths in the corridors might mask the sounds of voices coming from the consulting rooms soundproofing was promptly achieved by doubling the thickness of the doors. When emergencies like break ins or a foul smell in one of the consulting rooms occur the service from area health authority workmen is efficient.

After six years in the centre we do not regret our decision to move into it, even though we had no alternative. We knew from the beginning that people, not buildings, achieve or prevent teamwork: people working together in the building, that is, not outside administrators imposing their ideas of how teams should work. Before moving in we had had very good relationships with our attached district nurses and that did not change. The health visitor with whom we had formed a good relationship in the group practice centre soon retired and it took time to achieve the same rapport with the several health visitors who replaced her but we now have very good relationships with both groups of nurses. Relationships with the health visitors may even have been enhanced by the fact that they have their own large room for which they were not beholden to us.

What if we were to start all over again? Would we opt for another health centre or would we prefer a group practice built by us and our own architect under the cost-rent scheme? I asked each of my partners. One would choose another health centre, a second was undecided, and the remaining five were for a group practice centre. So was I.

**Reference**

- 1 Beale JG. *Sick health centres and how to make them better*. Tunbridge Wells: Pitman Medical, 1978.