

# Determining priorities for change in primary care: the value of practice-based needs assessment

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## SUMMARY

**Background.** Primary care is being expected to expand the range of services it provides, and to take on many of the tasks traditionally provided in secondary care. At the same time, general practitioners (GPs) will become increasingly responsible for assessing their patients' health care needs and commissioning care from other providers. This article describes an approach taken in one general practice to meet these difficult challenges.

**Aim.** To examine whether information on health and health care needs, when used as the basis for a priority setting exercise, can provide a useful first step in planning primary care provision within a practice.

**Method.** A three-stage process of information-gathering from a number of sources, including continuous data recording of patient contacts and a postal survey of all adults registered with the practice, identification of key findings and discussion of associated issues, and priority setting of proposals for practice development using the nominal group technique.

**Results.** Continuous data recording of patient contacts with GPs and the practice nurse provided data on 4489 GP contacts with 2027 patients, 1000 district nurse contacts with 101 patients, and 361 health visitor contacts with 172 clients. More than 70% of patient records had been computerized, with 600 diagnostic READ codes identified and 11 500 separate entries made. The socioeconomic and health survey questionnaire achieved an 84% response rate. Following the priority-setting exercise, 28 proposed practice developments were identified. These were reduced to a final list of eight.

**Conclusion.** A comprehensive method of practice-based needs assessment, when used as the basis for some form of priority setting, has great potential in helping to plan primary care services within a practice. The success of such initiatives will require a substantial investment of resources in primary care and fundamental changes to the way in which primary

care is funded.

**Keywords:** needs assessment; priority setting.

## Introduction

GPs, community nurses and other primary care professionals allied to medicine are increasingly expected to take a central role in bringing about and responding to change in the health service. GPs will be responsible for purchasing more health care for their patients as fundholding is extended.<sup>1</sup> The Labour Party, while committed to abolishing fundholding eventually, sees primary care-led commissioning as an alternative to the National Health Service (NHS) internal market.<sup>2</sup> The 1990 GP contract has required practices to change their structures and increase their workload.<sup>3-5</sup> A common view is now emerging that a shift in balance from secondary to primary care, and a consequent expansion in the range of services provided by the primary care team, will lead to a better health care system.<sup>6</sup> How are hard-pressed primary care staff to cope with these difficult challenges? Little genuine interdisciplinary team working exists,<sup>7</sup> clinical workload is poorly monitored in primary care,<sup>8</sup> and primary care staff lack the necessary resources, skills, and training to expand service provision and to undertake health needs assessment and strategic planning.<sup>6</sup> Separate developments in three unrelated areas suggest a possible solution.

Recent work by Murray and Graham<sup>9</sup> has shown how various methods can be combined to undertake practice-based needs assessment. The study also highlighted the value of public health collaboration. However, it provided little indication that such profiling of health needs alone can influence clinical practice or identify opportunities for change in health service delivery. A second approach that has found much favour with the Department of Health is practice development planning.<sup>10</sup> A practice development plan is a 'strategic plan which sets out how a practice should develop to perform more effectively.'<sup>10</sup> As envisaged by the NHS Management Executive, it has the potential to improve team-building, to increase primary care influence over health authority strategies and resource allocation, and to increase the range and quality of services provided in primary care.<sup>10</sup> The third development comes from work in the field of priority setting. Health authorities have used a variety of priority-setting approaches in an attempt to ration the services they purchase from trusts.<sup>11</sup> There is far less experience with their use in general practice.<sup>12</sup>

The project described here examines whether information on health and health care needs, when used as the basis for a priority-setting exercise, can provide a useful first step in planning primary care provision within a practice. The project also assessed the effect of this approach on interdisciplinary working within the primary care team.

## Methods

The project was based at Alyth Health Centre, a non-fundholding practice located in the small rural town of Alyth, serving approx-

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imately 3676 patients. A multidisciplinary project team was formed, comprising the three GPs, a GP trainee, local nursing fieldwork manager, practice manager, project coordinator, a health board nurse facilitator, and a public health consultant. During several initial meetings, the team designed a three-stage process of information gathering, identification of key findings and discussion of associated issues, and priority setting of proposals for practice development.

### *Stage 1 — information gathering*

The team acquired information during 1995 from a number of sources — some already in existence and others obtained through information-gathering techniques designed for the project. Data collection tools were developed by the project team in consultation with other practice staff in order to fill perceived gaps in their knowledge about their patients' potential unmet needs. Data collection methods included:

- Continuous data recording of patient contacts with GPs and practice nurse — recording sheets, used in conjunction with a diagnostic coding list, were completed for a three-month period to record details of all telephone calls, surgery consultations, and home visits.
- Continuous data recording of patient contacts with district nurses and health visitors.
- Creation of a morbidity register — a standardized method of updating all existing patient summaries — was established. The lifetime occurrence of any diagnosed condition in the patient's notes was READ coded.
- Postal survey of patients' socioeconomic background and health status — all patients aged 14 years and over were sent a questionnaire that enquired about socioeconomic status. The questionnaire included the Short Form 36-item (SF-36) Health Survey.<sup>14</sup>
- Communication interviews with staff — the project coordinator interviewed all relevant staff using a mix of closed, open-ended, fixed alternative and scale items focusing on roles, teamwork and exchange of information.
- Census information.
- Tayside Health Board statistics — through the Department of Public Health, data were provided on Alyth Health Centre patients' use of secondary care and on births and deaths. Most of the data referred to the financial year 1993/94.
- Existing practice-based statistics — the practice manager provided practice-based figures regarding the achievement of health promotion targets and current procedures for asthma and diabetes review.

### *Stage 2 — identification of key findings and discussion of associated issues*

Project staff held a one-day meeting in order to identify key findings from the information gathered in stage 1. Each member of the project team undertook to review the information obtained from one or more sources and to present the key findings to the project team. During the second half of the day, the issues arising were discussed at length by the team. At this stage, the team were reminded of recent priority and planning guidance from the Scottish Office, which identified three priorities for the NHS in Scotland: mental illness, cardio/cerebrovascular disease, and cancer. The team then attempted to synthesize the different sources of information, to generate hypotheses about the practice population's perceived health needs and, finally, to translate these key findings into potential practice developments.

### *Stage 3 — priority setting of proposals for practice development*

### *opment*

A second project meeting was held. A priority-setting exercise, using a modified nominal group method,<sup>13</sup> was undertaken.

- Each project team member generated a personal list of 10 ideas in response to the question, 'Based on your knowledge of the findings of the project, what do you think are the highest priority areas of possible health need amongst the Alyth practice population?'
- A round-robin sharing of ideas took place, with each member sharing one idea per round until all ideas were displayed.
- Ideas were clarified or modified as appropriate.
- Priority ideas were selected through rounds of private voting. Members selected five priorities from the full list, then three priorities from the shortened list.

## **Results**

### *Stage 1 — information gathering*

Continuous data recording of patient contacts with GPs and the practice nurse provided data on 4489 contacts with 2027 patients, which were entered into a specifically designed database for analysis. Almost 1000 district nurse contacts were recorded with 101 patients; 15% of these were with nurses based outwith the health centre. Health visitor contacts numbered 361 with 172 clients, 80% of this activity being with the under-fives. By the end of the project, more than 70% of patient records had been computerized, with 600 diagnostic READ codes identified and 11 500 separate entries made. The socioeconomic and health survey questionnaire achieved an 84% response rate after two reminders (95% in the over-65-years age group). A wealth of information was generated from these sources of information, and from health board statistics and the staff interviews. Some of the key findings are listed in Tables 1–3 and Boxes 1 and 2.

### *Stage 2 — identification of key findings and discussion of associated issues*

Issues that arose out of this discussion included how to plan for the impact of an ageing population, particularly in relation to earlier discharge from secondary care; how to capitalize on links already made between the district nurse and other agencies; whether the practice should be encouraging more men to attend, particularly given drinking habits in some age groups; whether patients were aware of the availability of the health visitor; how best to address the problems of carers; and whether the SF-36 scores could provide useful information for screening, monitoring outcomes, and auditing quality of care in specific patient groups.

### *Stage 3 — priority setting of proposals for practice development*

Using the modified nominal group technique, and with each of the six members of the project team who participated in the priority-setting exercise nominating 10 proposals, an initial list of 28 proposed practice developments were identified. In the second round, this was reduced to 13. In the final round, with each member restricted to three priorities, a final list of eight proposed practice developments was produced. The full list of proposals is shown in Table 4.

## **Discussion**

This project has demonstrated that information on health and health care needs is useful in planning primary care provision. We have shown that it can influence the choice of priorities for

**Table 1.** Primary care workload — key findings of the continuous morbidity data recording.

Source of information	Key findings																																		
Continuous data recording of patient contacts with																																			
General practitioners and practice nurses	<ul style="list-style-type: none"> <li>● More than half the 14–20 year age group were seen in a three-month period</li> <li>● There was a low rate of referral between GPs and community nursing staff</li> <li>● 12% of patients presented with more than one problem</li> <li>● The most prevalent problems were:               <table border="1" style="width: 100%; margin-top: 5px;"> <thead> <tr> <th>All ages</th> <th colspan="2">14–20 year age group</th> <th colspan="2">Over-65 year age group</th> </tr> </thead> <tbody> <tr> <td>URTI</td> <td>6.6%</td> <td>Contraception</td> <td>14%</td> <td>Heart problems</td> <td>8%</td> </tr> <tr> <td>Trauma</td> <td>4.4%</td> <td>URTI</td> <td>10%</td> <td>Arthritis</td> <td>6%</td> </tr> <tr> <td>ENT pain/discharge</td> <td>3.8%</td> <td>Trauma</td> <td>10%</td> <td>Hypertension</td> <td>4%</td> </tr> <tr> <td>Arthritis</td> <td>3.8%</td> <td>ENT pain/discharge</td> <td>9%</td> <td>Lab tests/X-rays</td> <td>4%</td> </tr> </tbody> </table> </li> </ul>						All ages	14–20 year age group		Over-65 year age group		URTI	6.6%	Contraception	14%	Heart problems	8%	Trauma	4.4%	URTI	10%	Arthritis	6%	ENT pain/discharge	3.8%	Trauma	10%	Hypertension	4%	Arthritis	3.8%	ENT pain/discharge	9%	Lab tests/X-rays	4%
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District nurses	<ul style="list-style-type: none"> <li>● 90% patients are aged 65 years or more</li> <li>● Almost all contacts occur in the patient's home</li> <li>● There was good evidence that skill mix was working as intended with a marked and appropriate division of labour and corresponding liaison between grades</li> <li>● The major nursing needs of patients were:               <table border="1" style="width: 100%; margin-top: 5px;"> <tbody> <tr> <td>Dressings</td> <td>15.8%</td> <td>Observation</td> <td>9.3%</td> </tr> <tr> <td>Bathing/general nursing care/washing and dressing</td> <td>14.9%</td> <td>Care of leg ulcer</td> <td>7.5%</td> </tr> <tr> <td>Assessment</td> <td>14.6%</td> <td>Teaching</td> <td>7.2%</td> </tr> <tr> <td></td> <td></td> <td>Counselling/support</td> <td>7%</td> </tr> </tbody> </table> </li> </ul>						Dressings	15.8%	Observation	9.3%	Bathing/general nursing care/washing and dressing	14.9%	Care of leg ulcer	7.5%	Assessment	14.6%	Teaching	7.2%			Counselling/support	7%													
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Health visitors	<ul style="list-style-type: none"> <li>● A very small number of referrals between health visiting and district nursing</li> <li>● 80% of activity was with the under-fives, mainly through planned contact or through the child health surveillance programme</li> <li>● 14% of contacts were made by health visitors not based at the practice</li> <li>● The most common activities were:               <table border="1" style="width: 100%; margin-top: 5px;"> <tbody> <tr> <td>Support to families</td> <td>21.4%</td> <td>Nutrition</td> <td>16.9%</td> </tr> <tr> <td>Child development</td> <td>19.2%</td> <td>Parenting skills</td> <td>12.5%</td> </tr> <tr> <td>Behaviour management</td> <td>11.2%</td> <td></td> <td></td> </tr> </tbody> </table> </li> </ul>						Support to families	21.4%	Nutrition	16.9%	Child development	19.2%	Parenting skills	12.5%	Behaviour management	11.2%																			
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practice development in at least three ways. First, our needs assessment confirmed many of the primary care team's perceptions of how well their practice's needs were being met. For example, it provided evidence that district nursing with an appropriate skill mix adequately met many health care needs. The health status survey provided some confirmation of unmet need among carers. On the other hand, the assessment showed that some perceptions of unmet need were unfounded. For example, it revealed a very low prevalence of single parents on low income, originally considered to be a problem area requiring targeted health care. Thirdly, the information identified unmet practice needs, of which the primary care team were unaware; e.g. the high proportion of patients with mental health scores on the SF-36 indicative of major clinical depression. In summary, this form of needs assessment resulted in proposals for practice development based on a careful consideration, by all members of the primary care team, of the best available information from all possible sources, which included policy guidance, and not simply on disparate and unsubstantiated clinical impressions.

The combined process of needs assessment and priority setting had a powerful effect on team building. The roles and responsibilities of different members of the primary care team were openly declared and discussed. The consensual nature of the nominal group approach to priority setting ensured that the views of all primary care staff were accorded equal importance. The actual process of designing data collection tools, collecting and analysing the data led to the acquisition of new public health skills within the practice. All these factors contributed to a greater appreciation by the primary care team of the need to appraise and evaluate their work critically. This was evidenced by the strongly stated desire to explore the data further and to undertake further analysis. Since the project was completed, the practice has joined the first wave of practices in the region that

**Table 2.** Morbidity register — most commonly occurring conditions by READ diagnosis.

Diagnosis (READ code)	Number of patients listed with this diagnosis (%)
Bone fractures (S0..0–S3..0)	685 (35)
Backache (N145.0)	193 (9.8)
Hypertension (G20..00)	173 (8.8)
Osteoarthritis (N05..11)	153 (7.7)
Anxiety (E200.00)	136 (6.9)
Ischaemic heart disease, including angina and myocardial infarction (G3..00, G33..00, G30..00)	121 (6.1)
Termination of pregnancy (7E086.0)	111 (5.6)
Neurotic depression (E204.00)	108 (5.5)
Asthma (H33..00)	99 (5)
Acne vulgaris (M2610.00)	84 (4.3)
Deafness (F59z.00)	81 (4)
Allergic rhinitis (H170.00)	78 (3.9)
Migraine (F26..00)	76 (3.9)
Atopic dermatitis/eczema (M111.00)	69 (3.5)
Chronic obstructive pulmonary disease (H3...00)	69 (3.5)

Approximately 70% of patient records of patients aged 14 years and over were summarized and computerized during the project. All data are derived from the records of permanent patients who are currently on the practice list. Conditions may be active or inactive, and may have occurred at any time during the patient's life.

have undertaken to produce practice development plans during 1997. The practice has also entered into negotiations with the health board to extend its premises (Table 4, priority 6).

This project also highlighted several potential problems with the concept of primary care-led planning. Current funding arrangements in general practice, particularly with regard to

- Staff working at the health centre enjoy their work, and feel able to communicate with staff at all levels.
- A fairly strong sense of being a member of the health centre team, but opinions regarding membership and leadership varied.
- Staff tend to think more about relationships — getting on well — than about sharing objectives and setting standards.
- There was a strong feeling that the efficiency of the team could be improved — there was a tendency to 'muddle along'.
- Conflict or disagreement was felt to be difficult to manage.
- There was a general desire to understand each other's roles more clearly in order to work together better.
- Communication of information tended to be informal rather than formal. In some cases, staff felt they would be able to perform their job better if they had easy access to certain types of information.

**Box 1.** Summary of findings from personal interviews with primary health care staff.

#### SF-36 health survey

Mean SF-36 health status scores for Alyth patients were generally slightly higher than population norms derived from Aberdeen,<sup>14</sup> and broadly similar to norms from the USA<sup>15</sup>

152 patients were identified as having mental health scores equivalent to or lower than the average score for patients with major clinical depression reported from the USA<sup>15</sup>

The health status scores of elderly people living alone were significantly lower than those of elderly people living with a partner or relative

The health status scores of carers — particularly energy and limitations because of emotional problems — were found to be significantly lower than those for other patients of similar age and sex

Individual patients were identified whose actual SF-36 scores differed significantly from their expected scores (based on a regression model)

#### Socioeconomic survey

A third of elderly people live alone

A third of elderly people have no access to a car

8% of respondents are unemployed, 27% retired

4% of respondents are carers. One third of these are under 50 years old, a third are male. Most care for four or more hours per day

10% of respondents have no central heating

39% of respondents with children under 5 years of age smoked, or lived with smokers.

**Box 2.** Key findings of the health status and socioeconomic patient survey.

**Table 3.** Health board and census data: summary of key findings.

Health board statistics — inpatient service use and costs 1993/94

#### Inpatient care by hospital specialty (as a percentage of all patients admitted)

Elective		Day case		Emergency	
Geriatric long stay	22%	Urology	25%	General medicine	24%
General surgery	15%	General surgery	21%	GP unit	16%
Orthopaedics	10%	Radiotherapy	12%	General surgery	12%
GP unit	8%	Plastic surgery	11%	Respiratory medicine	8%

#### Costs of inpatient care (as a percentage of total costs)

Elective		Day case		Emergency	
Geriatric long stay	39%	Urology	31%	GP unit	22%
Orthopaedics	14%	Plastic surgery	17%	General medicine	19%
General surgery	9%	Ophthalmology	13%	General surgery	12%
GP unit	7%	General surgery	10%	Orthopaedics	9%

#### Inpatient care by disease group (as a percentage of all patients admitted)

Elective		Day case		Emergency	
Circulatory	13%	Neoplasms	27%	Injury/poisoning	20%
Digestive	12%	Genitourinary	21%	Circulatory	16%
Neoplasms	10%	Skin	14%	Respiratory	14%
Musculoskeletal	9%	Nervous system	11%	Digestive	12%

#### Census data, 1991

Only 18 residents were of non-white ethnic origin (1.2%)

The catchment area falls between deprivation categories 2 and 3 using the Carstairs Index

Five women were classed as lone parents aged 16–24 years with children aged 0–15 years

619 individuals were classed as having limiting long-term illness. 68% of these were 65 years and over

premises, list sizes, and the employment of professionals allied to medicine, make it extremely difficult to implement many of the proposed service developments arising from the project. These developments are also dependent on the ability of health authorities to transfer resources from secondary to primary care. There are additional resource implications to be considered — employing a needs assessment coordinator, protected GP time, manage-

ment support from the health authority, and public health input. The total cost of the project was over £55 000. At first sight, this might seem excessive. However, many of the tools developed have already been used by other practices in the region. The largest single cost was incurred by the project coordinator. Substantial economies of scale could be realized if the method of practice-based needs assessment proposed here was coordinated

**Table 4.** Priority areas identified for practice development.

The final list of eight priority areas identified by the modified nominal group priority setting exercise

Patient-related priorities.

1. To obtain baseline health status scores for each practice patient and identify unexplained low scores
2. To identify undiagnosed mental health problems
3. Meeting carers' need for support
4. Health promotion for young people on contraception, smoking, alcohol, and other lifestyle factors

Practice-related priorities

5. Developing a team that can cope with change
6. Space for the primary health care team to deliver services in suitable premises
7. Need for an appropriately skilled primary care team
8. Need for an integrated nursing team

Priority areas eliminated during the second round of selection

1. Men's health care — disease prevention and health education
2. Less smoking in the practice population
3. Smooth transition from inpatient to community care
4. Need for pre- and post-hospital admission counselling
5. Need for practice standards that are known and can be used by patients

Priority areas identified by the modified nominal group exercise but eliminated during the first round of selection

14. Meeting the health needs of people with stress
15. Readier access to appropriate clinical advice and treatment from nurses
16. Reduce social isolation among the elderly
17. More social care; e.g. home help
18. Teach coping skills to people with angina
19. Access to complementary therapy for back pain sufferers
20. Identify further unmet needs from project database
21. Develop a greater understanding of each other's roles
22. More protected time for the whole team to meet
23. To meet the needs of travelling people better
24. To identify the needs of people with mental handicap
25. Reduction in alcohol consumption to safe levels for the practice population
26. Potential for hypothermia among elderly patients
27. To meet the needs of mentally handicapped people discharged from long stay hospital better
28. Increase knowledge and awareness about sun exposure and skin cancer.

on a locality- or district-wide basis.

In conclusion, a comprehensive method of practice-based needs assessment, when used as the basis for some form of priority setting, has great potential in helping to plan primary care services within a non-fundholding practice. Further work is needed to demonstrate that primary care planning can actually lead to an improvement in patient care. The success of such initiatives will require a substantial investment of resources in primary care and fundamental changes in the way in which primary care is funded.

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