

Research paper

Developing quality indicators for community services: the case of district nursing

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ABSTRACT

Background Quality indicators exist for the acute and primary care sectors in the National Health Service (NHS), but until recently little attention has been given to measuring the quality of community services. The innovative project described in this paper attempted to address that gap.

Objectives To produce a framework for developing quality indicators for Bristol Community Health services. To develop a set of initial indicators for Bristol Community Health services using the proposed framework.

Method After familiarising ourselves with community services and NHS policy, gathering the views of stakeholders and consulting the literature on quality indicators, we designed a framework for indicator development, using the 'test' case of the district nursing service.

The long list of possible indicators came from best practice guidelines for wound, diabetes and end of life care, the three conditions most commonly treated by district nurses. To narrow down this list

we surveyed and held workshops with district nurses, interviewed service users by telephone and met with commissioners and senior community health managers.

Results The final set of quality indicators for district nurses included 23 organisational and clinical process and outcome indicators and eight patient experience indicators. These indicators are now being piloted, together with two potential tools identified to capture patient reported outcomes.

Conclusion Developing quality indicators for community services is time consuming and resource intensive. A range of skills are needed including clinical expertise, project management and skills in evidence-based medicine. The commitment and involvement of front-line professionals is crucial.

Keywords: community health nursing, health care quality assessment, outcome and process assessment, patient care, quality indicators

How this fits in with quality in primary care

What do we know?

Quality is at the heart of all sectors of the modern NHS and quality indicators are increasingly employed to judge performance and commission services. Whilst considerable attention has been paid to some areas of primary care, e.g. the General Practice Quality and Outcomes Framework, little work has been done on developing quality indicators for NHS community services.

What does this paper add?

This paper describes a process for developing indicators for community services and a sample set of indicators for district nursing. It also shares key insights into the development process that may help to guide others embarking on similar projects.

Introduction

Quality is a central tenet of the modern UK National Health Service (NHS). In 2004, a major quality initiative was launched in NHS general practices with the General Practice Quality and Outcomes Framework (GP QOF),¹ a voluntary pay-for-performance scheme based on achieving targets across a range of organisational and clinical domains, including coronary heart disease, diabetes and hypertension. Although controversial,^{2,3} the introduction of the GP QOF has radically changed the quality landscape.

The final report of the NHS Next Stage Review,⁴ published in July 2008, declared that quality should be the organising principle of NHS service delivery, with the setting and measuring of quality standards as an integral part. Although the initial focus was to be on acute services, the review included a commitment to address quality within the community services sector through the Transforming Community Services (TSC) programme,⁵ which included a draft set of 76 indicators.⁶ The recent White Paper *Equity and Excellence: liberating the NHS* reaffirmed and reinforced the commitment to quality by charging the National Institute for Health and Clinical Excellence (NICE) with the remit of developing quality indicators for over 140 conditions, some of which are treated in the community sector.⁷

The community services sector in England consists of a range of services such as health visitors for pre-school children, community nurses for older people, learning disability services, physiotherapy and podiatry. At the time of this project, community services in Bristol were commissioned by the primary care trust (PCT) known as NHS Bristol and provided contractually by Bristol Community Health (BCH), the local authority, other local health trusts (e.g. acute hospital and mental health trusts) and 'third sector' organisations such as charities. Having seen the powerful effect of the QOF on general practitioners (GPs), Bristol commissioners wanted to explore a

similar approach to incentivising good quality care amongst local community services, particularly those operated by BCH. In March 2008, therefore, NHS Bristol commissioned the Universities of Bristol and the West of England to develop locally relevant quality indicators for community health services. The project had two main aims:

- 1 to produce a framework for developing quality indicators for BCH services
- 2 to develop a set of initial indicators for BCH services using the proposed framework.

The ethos of the project was to develop a range of quality indicators that would be meaningful to service providers, reflect the values of service users and carers and provide the basis for commissioning decisions in competitive tenders. The project began in September 2008, lasted for 12 months and was undertaken in a number of inter-related phases. In this paper we report the process of developing the framework and the indicator set.

Method

Familiarisation and planning

The aim of the first phase of the project was to conceptualise and formalise the direction of the project by familiarising ourselves with local community services. This involved three main activities:

- 1 Learning about community services and relevant NHS policy by:
 - meeting and shadowing community health staff members from services including district nursing, physiotherapy, community matrons and learning disabilities
 - reading key national and local policy documents on quality indicators and on community services^{4,8-13}

- attending a seminar on the new community contract organised by the NHS Primary Care Commissioning Team on behalf of the South West Strategic Health Authority.
- 2 Gathering the views of stakeholders by:
- holding three focus groups with Heads of Community Services to gather their views on: definitions of quality; the measures, protocols or standards currently in use within their own service areas; and ideas about where we should focus our efforts
 - meeting the NHS Bristol Health Interest Group (service users and carers) and subsequently carrying out telephone interviews with six service users and carers
 - meeting the Deputy Director of Commissioning from NHS Bristol and her team
 - meeting several key BCH staff, including members of the clinical governance, performance management and learning and development teams.
- 3 Reading and appraising the quality indicators/audit literature by:
- searching for information on developing quality indicators from national and international sources¹⁴⁻¹⁸
 - conducting several searches of the internet and bibliographic databases (e.g. Medline) to define quality, find methodological literature on indicator development and locate evaluations of quality indicator programmes (search terms included: quality indicators, quality of healthcare, quality assurance, quality assessment, clinical indicator, outcome assessment, process assessment, primary health care, community services).

The remainder of this section describes key learning points from those activities that influenced the course of the project.

Beyond a common aim to enable people to receive care in a local setting or in their own home, community services are diverse, covering a broad range of clinical areas and types of staff with differing levels of specialisation. Newer services (such as intermediate care teams) are more likely to have some quality criteria linked to their contractual responsibilities. Community services work to a range of quality protocols, such as clinical guidelines and national service frameworks, which could provide a useful source of quality indicators. A large amount of data are recorded, although there are differences between services and teams both in terms of amount of data recorded, the types of systems used (e.g. electronic or handwritten) and where data are stored.

Quality incorporates many different dimensions. Service users and staff saw good quality care as being about much more than improving clinical outcomes.

Service users saw high-quality services as incorporating clear management structures and organisation; good quality information and timely communication; continuity of care, with particular emphasis on transition points; timely responsiveness and well-trained staff who combine a professional approach with kindness and flexibility. Staff saw good quality care as incorporating clinical effectiveness and safety, embedded in a holistic approach geared towards meeting the patient's physical, mental and emotional needs. They felt care should be patient-centred and empower the patient and their family to manage their own health.

From our review of the literature, we identified several other similar quality initiatives, some of which (such as the QOF¹⁹) have been well evaluated, but very little specifically relating to community services. Existing initiatives could be used as a basis for developing a framework for indicators for community services, taking care to ensure that they are feasible and appropriate for the community setting.

Donabedian²⁰ described three categories of health care quality measurement – structure, process and outcome. Outcome indicators are intuitively appealing as they represent the ultimate goals of health care and are more easily understandable for some groups, such as service users, than those based on either structure or process. However, many factors beyond differences in care influence outcome (such as socio-economic status, or patient concordance) and outcome indicators can therefore be hard to analyse and interpret. Process indicators are more likely to be within the control of healthcare providers and less susceptible to influence from external factors. To indicate quality, there should be clear evidence that improved processes are related to improvements in important outcomes.

Finally, having looked at the literature on criteria of 'good' indicators^{18,21} and in discussion with our advisory group, we determined the following criteria against which to evaluate the proposed indicators:

- evidence of clinical benefit
- within the scope of influence of clinicians
- recognised as important by service users, commissioners and community service managers
- measurable
- impact on health gain (scale of the healthcare problem, health inequalities)
- low risk of 'perverse incentives' or gaming.

Having described the key learning points, Table 1 shows how these influenced our choice of approach.

Having decided to focus on one service, we chose district nursing (DN) as it is a large service, the role of district nurses has undergone change in recent years and the staff were enthusiastic about being a 'test' case. We decided to focus on three areas of clinical practice – wound, end of life and diabetes care – as the district

Table 1 Key findings of the initial assessment influencing the choice of approach

Initial assessment	Choice of approach
Quality is a multidimensional concept, incorporating clinical effectiveness, safety, patient empowerment, clear organisation, timely communication and flexibility and meeting patients' physical, mental and emotional needs.	Employ a broad, holistic definition of quality that captures more than just clinical effectiveness and safety
Different stakeholders emphasise different aspects of quality	Ensure that the agendas of multiple stakeholders are captured, in particular those of service users and carers
Other similar quality initiatives exist, including the GP QOF which has been well-evaluated and emphasises the patient's experience	Organise the framework according to the three dimensions used by the QOF – organisational, clinical, patient experience
Community services are very heterogeneous in terms of clinical areas, types of staff, level of specialisation	Design a framework for the development of quality indicators that is universal to all services Develop a set of indicators using the proposed framework for one community service only
Newer services more likely to have contractual quality requirements incorporated	Most benefit would be achieved from developing indicators for an older service
Outcome indicators are difficult to interpret as outcomes are influenced by many factors beyond care given	Focus on developing process indicators, ideally those that are evidence based to ensure clear links with outcomes
Community services staff work within a range of quality guidance, much of which is evidence based	Current quality guidance should be used as an initial source of indicators, supplemented where necessary by additional evidence reviews
Community services currently collect a large amount of data about care given	Where possible, use currently collected data to measure indicators rather than requiring new data to be collected

nurses identified these areas as constituting the majority of their workload. They also fitted with NHS priorities to improve care for people with long-term conditions and at the end of life.⁴

Development of indicators

In March 2009, we ran three workshops – one for each clinical condition – with members of the Bristol District Nursing Strategy Group (comprised of 15 district nurses from all grades with a special interest in promoting and developing the service). Prior to the workshops, we identified 72 potential process indicators from current relevant guidance published by organisations including NICE, the Royal College of Nursing and the Department of Health.^{22–28} We selected indicators that should apply universally to a group or subset of service users, were likely to provide an important impact on health outcomes or patient

experience, were appropriate to a community setting and were supported by evidence or expert consensus.

At the workshops, we asked attendees to consider the following questions for each indicator:

- Would this quality indicator lead to improved patient health outcomes?
- Would this indicator lead to improved patient satisfaction?
- Does this indicator reflect good quality nursing care?
- Is the indicator something within a nurse's influence?
- Is the indicator measurable? Are data already available?

These questions were derived from the criteria we had determined against which to evaluate the proposed indicators. Indicators that were not within the influence of district nurses (e.g. equipment), went against

current PCT policy (e.g. advance preparation of insulin injections for patients to administer in their own homes), accounted for only a very small proportion of caseload (e.g. surgical wounds) or were not suitable for housebound patients (e.g. structured group education for type 1 diabetes) were dropped. Although measurability was not a top priority at this stage, we eliminated any indicators which district nurses argued could simply not be measured.

To obtain the perspective of a wider range of DN staff we conducted an online survey of Bristol DN team leaders in April 2009, with a response rate of 76% ($n=34/45$). Respondents were asked to rate the remaining process indicators on similar items to those asked at the workshops and to indicate the extent to which they believed variability in practice existed for each indicator.

In tandem, we gathered the views of service users, senior managers from BCH, commissioners from NHS Bristol and clinical and academic specialists on the shortlist of indicators via face-to-face meetings, telephone conversations and email correspondence. At this stage, the commissioners from NHS Bristol requested that we also identify some outcome indi-

cators. Consequently, we identified ten potential outcome indicators by looking at the most commonly used outcome measures in major studies of wound, end of life and diabetes care and through discussion with academics, district nurses, the DN Strategy Group and tissue viability, palliative care and diabetes clinical specialists.

In June 2009, our advisory group (which included representatives from NHS Bristol, BCH, the DN service, service users and a GP) met to consider the shortlist of organisational and clinical indicators and potential patient experience surveys. At this stage, there were 32 process and 10 outcome indicators. Prior to the meeting, short reports for each indicator were drafted. The reports detailed the evidence base, consensus and views of front-line staff, perceptions of current practice, views of management and commissioners and the extent to which indicators met local and national priorities. An example report is shown in Box 1. At the meeting group members discussed the indicators and voted on which ones to keep. Following discussion, 22 process indicators were retained and 10 were deleted. Reasons for elimination included lack of consensus concerning appropriate

Box 1 Example of an indicator report

Indicator: WC 11

All patients with a leg ulcer who have been under DN care for at least six weeks should have a documented assessment of screening for arterial disease by Doppler measurement of ankle/brachial pressure index

Evidence of a benefit

This indicator is based on a recommendation from the RCN guideline on venous leg ulcers.²⁸ The guideline identified six studies of the detection of peripheral vascular disease by pulse palpation alone (one study) or compared with Doppler assessment of ankle brachial pressure index (ABPI; five studies). Detection by pulse palpation alone was found to be unreliable, with both false positives and false negatives observed. We identified one recent non-systematic review of the validity and reliability of ABPI measurement in leg ulcer which concluded that ABPI measurement derived using hand-held Doppler ultrasound constitutes a valid and reliable basis for decision making on the appropriate use of compression therapy, provided the practitioner is trained, experienced and can interpret the result within the context of a full clinical assessment²⁹

Professional perspectives

Of DN team leaders surveyed 100% agreed that this indicator represents good quality nursing care. Comments from individual DN team leaders were that there were insufficient training days for Doppler (two a year), so very few BCH staff do this. One nurse, who had worked for other community services, was particularly shocked that so few nurses do this in BCH. One queried whether it should be done in less than six weeks

A sub-group of the DN strategy group wanted to keep this indicator

Perceptions of current practice

Of DN team leaders surveyed 58% agreed or strongly agreed that there was variability screening of leg ulcer patients by Doppler, putting this indicator in the first quartile

Fits in with PCT and national priorities

No NHS commissioner made any specific comments about this indicator

Views of BCH management team

A senior BCH manager wanted to keep this indicator

care, not considered to be a useful indicator of quality and not measureable. Only six outcome indicators were retained. The remainder were rejected due either to problems with measurement or difficulties in attributing changes in outcome to the DN service.

Concurrently with developing the clinical indicators, we also considered how to measure the quality of patient experience. In particular, we wanted to capture two types of information: patient satisfaction and patient identified outcomes. We conducted telephone interviews with six service users (who were hand-picked by district nurses to represent views of people receiving care for a wound, diabetes or end of life) and looked at the literature on quality of care for housebound patients.³⁰ To capture patient satisfaction, we developed a short telephone survey, based on questionnaires developed by the Picker Institute³¹ and Dr Foster.³² This is currently being piloted with 20 district nursing service users. To capture patient identified outcomes, two tools were selected as potentially suitable – Measure Yourself Medical Outcome Profile (MYMOP)³³ and Goal Attainment Setting.³⁴ Ten Bristol district nurses are currently testing these tools.

In the final phase (July to September 2009), we ran three further workshops with DN team leaders and relevant clinical specialists to make any final amendments to the wording of indicators and determine how each should be measured. In September 2009, we met with the DN Strategy group to clarify any outstanding issues and discuss implementation.

Results

The final list included two organisational, 21 clinical and eight patient experience indicators. Of the clinical indicators, five were for diabetes, eight for end of life and eight for wound care. Six were outcome indicators (three each for end of life and wound care, none for diabetes) and the remainder were process indicators. The full list is shown in Box 2.

Discussion

In this paper, we have outlined our experiences of designing a framework for the development of quality indicators for community services (see Figure 1), using the DN service as a test case. In this section we describe our main findings and strengths and limitations of the project, contrast what we have done with other similar initiatives and consider implications for future research.

Main findings

Having produced a framework for the development of quality indicators for community services, we then employed this framework to develop a set of indicators for the DN service in Bristol. Potential indicators were identified from best practice guidelines, reviews of the literature and consultation with service users. We consulted with stakeholders regarding the indicators through the use of a survey, workshops, telephone interviews and face-to-face meetings. The final set of quality indicators included 23 organisational and clinical process and outcome indicators and eight patient experience indicators.

Strengths and limitations

A key strength of the project was that the indicators were locally developed. Involvement of front-line staff from the service for which indicators are being developed is important in order to gain a clear understanding of the scope of the service and its core areas of practice, the validity of the indicators chosen and the feasibility of measurement. We involved members of the DN service at all stages of development and their assistance was invaluable. Participants were keen to contribute and to have the opportunity to reflect on their practice. This involvement also increased the sense of ownership of the indicators.

In addition to NHS staff, a broad range of people and organisations were contacted throughout the course of the project. This included individuals working within other quality improvement initiatives, service users and carers, academics with specialist expertise in developing indicators and academics with national reputations in the clinical conditions under study.

The project also encountered several challenges. Defining and measuring the quality of a service necessitates a clear understanding of what that service actually does. However, at the outset of the project, there was no service specification for the DN service in Bristol. District nursing is not a specialist service, but plays a more generalist role in providing care to help patients to live independently within the community. As such, it addresses a wide range of health and social care needs. It was hard to capture the diverse range of activities provided by the service and to identify the core services provided. Prompted by our activities, the DN service now has a very clear remit, which is being used by commissioners to develop a service specification.

We aimed to involve service users at all points during the project. Users of district nursing services are by definition housebound, making attendance at focus groups or stakeholder meetings nearly impossible.

Box 2 Final list of indicators**ORGANISATIONAL DOMAIN**

OG 1: Each DN team should be able to produce on request a register of all patients currently on the caseload, the main reasons for their involvement and frequency of visits

OG 2: All patients should have a common assessment framework carried out within three weeks of the date of the first DN visit

CLINICAL DOMAIN**Diabetes**

DB 1: All diabetic patients should have a record of an individual care plan, reviewed at least annually

DB 7: Clinical monitoring of blood glucose levels of haemoglobin A1c (HbA1c) should be performed at least every six months for all diabetic patients who are insulin requiring for whom the district nurses administer insulin

DB 23: All diabetic patients and their carers should be given information about their condition and any short-term complications such as hypo- and hyperglycaemia and diabetic ketoacidosis. Leaflets should be readily available in the care plan

DB 26: All diabetic patients should have a formal review carried out annually. This review should include:

- blood pressure measurement
- recommendation of an eye check by an ophthalmic optician (or patient refusal recorded)
- referral to a podiatrist for patients with one or more risk factors for foot ulceration (or patient refusal recorded)

DB 31: Patients with a blood pressure measurement of above 145/80 mmhg recorded three times over two consecutive weeks should be discussed with their GP and a record of the conversation made in the patient's notes

Wound care

WC 2: All patients with pressure ulcers should have a documented initial assessment using the Waterlow assessment tool. Ongoing assessment should be done at least weekly and recorded in the patient's notes

WC 8: Dressings and creams for pressure ulcers should be used in accordance with BCH wound management formulary. Bandaging for venous leg ulcers should be used in accordance with BCH leg ulcer guidelines

WC 11: All patients with a leg ulcer should have a documented assessment of screening for arterial disease by Doppler measurement of ankle/brachial pressure index within six weeks

WC 12: Each patient with a leg ulcer should have a formal record of ulcer size, documented at first presentation and at least 4–6 weekly intervals thereafter

WC 14: All patients with a venous leg ulcer should have a documented individual management plan that includes pain assessment and relief, dressings procedures and therapy, e.g. compression bandaging, mobility and leg elevation

WC 38: Venous leg ulcers should heal within 24 weeks of diagnosis

WC 39: Progression of wound bed (slough, dead tissue, colouring) should be observed within six weeks of diagnosis (or of joining DN caseload)

WC 40: Reduction of pain should be observed within four weeks

End of life care

EL 5: A member of the DN team discusses the care of the end of life patient at least monthly and this is recorded in the patient's notes

EL 7: The team has a complete register of all patients for whom they are providing end of life care. This register should include:

- name of carer
- diagnosis (plus code)
- GP name
- problems/concerns
- anticipated needs
- information given/carer issues
- DS 1500 date
- CNS
- hospice/SPC

Box 2 Continued

- OOH handover form date sent
- preferred place of care stated plus date

EL 12: Newly requested syringe drivers should be set up within four hours of the decision being made (when anticipatory prescribing is in place)

EL 19: Carers who are looking after patients should have been offered information and advice on practical issues where needed

EL 21: When a newly requested syringe driver is set up, out of hours services should be notified by end of shift

EL 22: Death at preferred place (or death at home, when requested)

EL 25: Symptoms are controlled as well as is possible (pain, nausea, distressed breathing)

EL26: Carer(s) felt supported

PATIENT EXPERIENCE DOMAIN

PE 3: Proportion of service users who stated that the district nurse had all the necessary information about the service user and his/her health needs

PE 4: Proportion of service users who stated that the district nurse had all the equipment and dressings needed

PE 5: Proportion of service users who stated that the district nurse was knowledgeable and competent

PE 6: Proportion of service users who stated that the district nurse provided health advice or information about his/her condition

PE 7: Proportion of service users who stated that they were involved as much as they wanted to be in decisions about their care and treatment

PE 8: Proportion of service users who stated that their district nurse treated them with respect and dignity

PE 9: Proportion of service users who were able to contact a district nurse when needed, including outside of normal working hours

PE 10: Proportion of service users who rated the district nurse service as very good or excellent

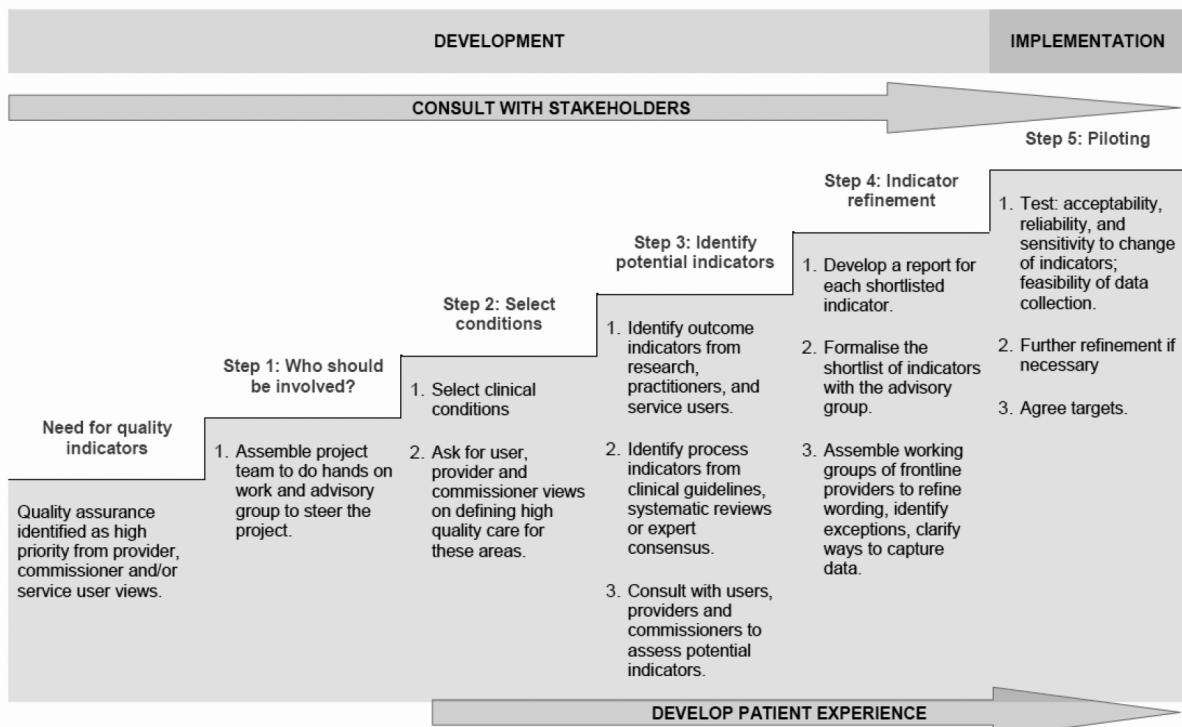


Figure 1 Framework for developing quality indicators in community services

So our primary method of consultation was through telephone interviews. Most DN patients are elderly and many have cognitive issues. Many technical aspects of the quality of care were not readily understood by service users and therefore we had considerable difficulty in eliciting responses to the indicators themselves. In addition to struggling to know how to best involve users, we were challenged by how to incorporate their views. Aspects of quality cited as important by service users, e.g. kindness, compassion, good communication, were often more difficult to measure than those identified for the clinical conditions.

Despite our intentions, we found that good evidence was not always available for DN activities; however, the use of rigorously developed guidance (such as clinical guidelines) to identify indicators ensured that our process indicators were based on the best available consensus regarding what constitutes high-quality care.

Relationship to previous literature

We decided to use the well-evaluated¹⁹ GP QOF as the initial starting point for developing our indicators, although initiatives also exist in nursing³⁵ and in other primary care settings including mental health services,³⁶ community pharmacy³⁷ and pre-hospital care.³⁸

Indicators can be identified from existing data sets,^{35,39} clinical guidelines^{36,38} and reviews of the evidence.¹ Our indicators were identified from clinical guidelines. The advantage of this approach for services developing their own local indicators are that well-developed clinical guidelines incorporate systematic reviews of the literature and expert consensus, and clinical practice recommendations may need little or development to be turned into good process indicators.

We developed quality indicators using three of the domains utilised by the QOF – clinical care, organisational and patient experience. To develop clinical indicators we focused on the commonest conditions dealt with by the service, an approach also used for the development of indicators for the ambulance service.³⁸ Additional reasons for the choice of clinical areas include the potential for improved outcomes³⁸ and the areas' association with considerable morbidity or mortality.⁴⁰ The QOF development process allows stakeholders to suggest new clinical topics for inclusion.⁴¹ This represents a useful approach for future extension to our DN indicator set and if service staff are involved in the choice and prioritisation of new clinical areas this should continue the sense of local ownership.

Whereas other indicator sets have placed more emphasis on assessing structure³⁷ or outcomes³⁵ of care, the majority of our indicators measured processes. We had some difficulty developing outcome

indicators (for one of our clinical areas – diabetes care – none of the original outcome indicators appeared in the final set). Health outcomes are influenced by many factors in addition to care given, in particular the characteristics of the population.^{42,43} If services are judged on outcomes that staff cannot influence, this undermines the credibility of the quality improvement process, is demoralising for staff and can lead to gaming or patient selection.⁴² Health services can only improve patient outcomes by improving what they do with those patients (i.e. the processes of care). For these reasons our main focus was on developing process indicators, taking care to ensure that they were clearly linked to health outcomes, preferably by being evidence based.

Although we regularly consulted with stakeholders throughout the project, our consensus processes were less formal than other initiatives,^{36,39,41} which have conducted several rounds of surveys, utilising techniques such as Delphi⁴⁴ or the RAND appropriateness method.⁴⁵ We wanted to include a very broad range of individuals in the development of our indicators rather than limit our consultation to representatives on an 'expert' panel. Our consultation with stakeholders was iterative and achieved through email and telephone conversation as well as face-to-face contact. This enabled us to have very regular contact with stakeholders and to target particular individuals or groups as appropriate to specific stages of the development process. We feel that the continued involvement of members of the DN service in the process resulted in an increased sense of ownership.

Initiatives differ in the extent to which they have attempted to address the patient perspective of quality. Shield³⁶ convened patient focus groups to identify aspects of care considered important from the patient/user perspective in primary care mental health services. The QOF includes a patient experience domain; however, the indicators in this domain focus on the length of the consultation and the use of a patient survey as opposed to its results. Our patient survey addresses patient-centred aspects of quality including listening and communication, empowerment, respect and dignity and continuity of care, as well as overall satisfaction with care received.

A key difference between our project and other initiatives considered in this section is that our indicators were developed at a local rather than national level. Advantages to this approach are the increased sense of ownership and the setting of more personalised targets. A disadvantage is that, as the data will only be collected in one geographical area, it will not be possible to benchmark the Bristol DN service against other DN services across the nation.

Generalisability

Developing quality indicators is both time consuming and resource intensive and requires a range of skills. Consequently, there are considerable benefits to generalising quality indicators to other services. The framework we have produced for developing quality indicators should be suitable for use in other community services. Similarly, the indicators themselves could be used to evaluate the quality of other UK DN services. Our indicators may be a useful starting point for other services that encounter the same clinical conditions in similar settings, although care needs to be taken to ensure that they are appropriate to other patient groups and to the level of specialty. The transferability of the indicators to other countries may be limited due to variations in professional culture, clinical practice and differences in service organisation,⁴⁶ however, other initiatives have been successfully adapted.^{39,47}

Implications for research

As a result of our activities we have identified a number of questions for future research. These include:

- How can service users be meaningfully involved, particularly in relation to the more technical aspects of delivering high-quality care?
- What are acceptable, measurable and feasible outcome measures for district nursing, where the emphasis is more on care than cure?
- What differences do the implementation of quality indicators make to quality of care?
- Does the implementation of process indicators lead to improvements in outcomes for DN service users?

Finally, meeting the challenge of this project was partly frustrated by the lack of research evidence to support the indicators. Studies of community nursing interventions for elderly, housebound patients are urgently needed.

Conclusion

This project has encountered several challenges. However, we were able to design a framework for developing indicators in community services and apply that framework to produce a set of quality indicators for the Bristol DN service. These indicators are now being piloted, together with the patient satisfaction telephone survey and two potential tools identified to capture patient reported outcomes.

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