



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

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Executive summary

In March 2008, the Academic Unit of Primary Health Care at the University of Bristol was commissioned by the Director of Commissioning at NHS Bristol to develop quality indicators for community services. The motivation for developing quality indicators was to help staff better understand the contribution they make to patient care and to work towards developing a commissioning tool to use in contracting community services. The project had two main aims:

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

The framework details the four main steps:

- Clarifying who should be involved
- Selecting the conditions
- Identifying potential indicators
- Refining the indicators

Using this framework, we selected the district nursing service as a test case and developed 31 process and outcome indicators. Two of these were organisational, applicable across the service, and 21 related to end of life, wound and diabetes care – the three clinical areas of the greatest focus for district nurses. We also developed a patient satisfaction questionnaire for district nursing service users, which provided a further 8 potential indicators such as access to equipment, transition between services and information giving. In addition, we identified two possible tools to collect patient specified outcomes (MYMOP and Goal Attainment Scaling), which could be modified to provide additional indicators.

Although designing the framework and developing the indicators has proved challenging, we have fulfilled the original brief. The next steps are:

- to test the framework in other community services, whether in Bristol or more widely
- to pilot the condition specific district nursing quality indicators
- to pilot the patient satisfaction questionnaire and the patient specified outcome tools.

Recommendations

Recommendation 1 Test the framework in other community services

A key product from this work has been the framework to develop community indicators. As this was developed with district nursing services, we do not know if it will be useful for and acceptable to health professionals and service users from other community services. Using this framework to develop quality indicators for other community services would address this question.

Recommendation 2 District nursing pilots

We would strongly recommend the piloting of:

1. the district nursing condition specific service quality indicators
2. the patient directed outcome tools (MYMOP and Goal Attainment Scaling)
3. the patient satisfaction questionnaire

Further discussion is needed on the ways in which this pilot would be carried out and who would manage it.

Recommendation 3

Without investment in electronic systems, capturing the data for these indicators is nearly impossible. Therefore, we recommend that those carrying forward the work in the piloting and implementation phases work closely with RIO developers.

Recommendation 4

We recommend that in the contract for April 2010-March 2011, the district nursing service is asked to collect baseline data across the entire service. This can then be used to further refine targets that can then be set for the entire service in the following year (April 2011-March 2012).

Structure of this report

This report has been designed so that each section can stand alone. So, for example, those who are developing quality indicators for community services in the future will have all the information they need in section two on the framework for developing quality indicators and district nurses can pull out the list of indicators for immediate access to key information about each indicator in section three. The disadvantage of this approach is that there is necessarily some repetition.

Section One outlines the background to the project and gives information on the original brief.

Section Two is focused on the framework for developing quality indicators in community services.

Section Three provides details on the district nursing service indicators that were developed using that framework.

Section Four described the way in which the framework and the indicators were developed.

Section Five discusses the strengths and weaknesses of this work.

Section Six outlines the next steps.

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SECTION ONE

Background to the project

Introduction

Our aim was to develop a framework for designing quality indicators in community services and populate that framework where possible. This section introduces the background to the project.

Background

Policy context

Quality is a central, and rising, tenet of the modern NHS. Earlier this decade, a major quality initiative was launched in general practice with the development and implementation of the General Practice Quality and Outcomes Framework (GP QOF). More recently, Lord Darzi's Next Stage Review report *High Quality Care for All* placed a strong emphasis on quality to help clinicians and commissioners to improve services and patients to make informed choices. (Department of Health, 2008) The recommendations of the review significantly expand the scope and volume of information being collected in the NHS. For example, the review recommended that all registered healthcare providers working for, or on behalf of, the NHS will be required to publish 'Quality Accounts', just as they publish financial accounts. This report also recommended the implementation of 'patient reported outcome measures' (or PROMS) in the acute sector, with the expectation that PROMS will be identified and rolled out across all sectors. NHS organisations are increasingly being encouraged to develop and utilise the measures that will best help them to review the quality of the services they offer regularly.

Within this context, it is unsurprising that the focus on the development of quality indicators for community services has intensified. In November 2008, the Department of Health published a new standard contract for community services (for new contracts from April 2009) which includes quality and performance standards. The eventual aim is to link quality improvement to provider income and payment through the Commissioning for Quality and Innovation (CQUIN) framework. The CQUIN framework will offer commissioners a menu of indicators and Primary Care Trusts (PCTs) will pick those most applicable to enshrine in their community service contracts.

Local context

NHS Bristol is the primary care trust that commissions healthcare services for the population of Bristol. It commissions community services from a variety of providers based in the Local Authority, voluntary sector, local health Trusts and Bristol Community Health. Bristol Community Health was formerly the provider arm of NHS Bristol, but since April 2008 it has become a separate

organisation. Bristol Community Health offers a comprehensive range of health services that enable people to receive care in a local setting or in their own home. Thirty three separate services are currently provided, though some, such as the intermediate care service, comprise a further range of specialist teams. Community services have in recent years been provided by separate organisations in the north and south of the city and have only comparatively recently been merged under one umbrella organisation.

Our brief

In anticipation of the need to develop locally relevant quality indicators for community services, Deborah Lee, Director of Commissioning for NHS Bristol, commissioned the Academic Unit of Primary Health Care at the University of Bristol to develop quality indicators for community health services. We understood that the purposes for developing quality indicators were to help clarify the contribution that community services make to health care (i.e. professional development), and to develop a set of standards for commissioners to use to support commissioning decisions. We wanted to develop a range of quality indicators that would be meaningful to service providers, reflect the values of patients and carers and provide the basis for commissioning decisions. For this purpose it was proposed to use a mix of qualitative methods to elucidate what was understood to be a high quality service in a community setting context, in addition to reviewing the literature on effectiveness of care.

The project had two main aims:

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

We were asked to develop quality indicators, as if electronic data collection systems were already in place. The choice of how to develop the indicators was at our discretion, as was which service(s) we involved and the number of indicators ultimately developed. Of key importance to the Director of Commissioning was ensuring that routine tasks were done consistently well. The brief for the project and original protocol can be found in (Appendix 1).

SECTION TWO

Framework for developing quality indicators in community services

Introduction

This chapter starts by giving some necessary background to developing quality indicators. We begin by outlining a commonly used framework for classifying types of quality indicators – Donabedian’s structure, process and outcomes system. We then continue with a discussion of some of the advantages and shortcomings of process and outcome indicators. We go on to describe the ‘anatomy’ of a quality indicator and the desirable characteristics of ‘good’ quality indicators.

The chapter continues by describing the recommended process (referred to as a framework) for developing quality indicators for NHS community services. The framework is represented visually in Figure 2.1. We discuss where the need for quality indicators might lie and go on to describe the four steps of developing quality indicators in community services, which are:

- Clarifying who should be involved
- Selecting the conditions
- Identifying potential indicators
- Refining the indicators

The chapter concludes by outlining processes for capturing patient experience.

Background to developing quality indicators

Structure, Process and Outcome Indicators

Several different types of indicators can be developed. Donabedian (1966) described three categories of health care quality measurement – structure, process and outcome – which have since been employed almost universally when the quality of health care is assessed. The three categories are related: structure influences process, which in turn influences outcomes. Definitions are provided in box 2.1 below.

Box 2.1 Donabedian's Structure, Process and Outcome model

Structure (“What you need”): Structure describes the attributes of the settings in which health care is delivered. It includes material resources (e.g. facilities and equipment), human resources (e.g. numbers of staff and qualifications/training undertaken) and organisational structure (e.g. team organisation).

Process (“What you do”): Process describes what is actually done in giving and receiving care. It includes the activities of both the practitioner (e.g. communication, assessment, education, investigations, prescribing, surgical and other therapeutic interventions, evaluation, and documentation) and the service user (e.g. in seeking care and carrying it out).

Outcome (“What you can expect”): Outcome describes the impact of the processes of care. Outcomes can be physical (e.g. mortality, healing rates, adverse events) or behavioural (e.g. patient knowledge or behaviour). Sometimes surrogate or intermediate outcome criteria are used instead. These are outcomes which are closely linked to eventual outcome, but are more easily measured (e.g. blood pressure control for hypertension as opposed to morbidity). Outcome also includes measures of patients' experiences of their care (e.g. patient satisfaction or convenience).

(Donabedian 1966; 1988; NICE 2002)

Examples of structure, process and outcome indicators

An example of a structural indicator for this project was:

Staff doing screening for arterial disease by Doppler measurement should have been trained in the procedure.

An example of a process indicator for this project was:

Clinical monitoring of blood glucose levels of haemoglobin A1c should be performed at least every six months.

An example of an outcome indicator for this project was:

Death at preferred place

Advantages and shortcomings of process and outcome indicators

There is some debate about whether quality of care should be measured using process or outcome indicators.

Outcome indicators are intuitively appealing as they represent the ultimate goals of healthcare. They are more easily understandable for some groups, such as patients, than process indicators. Outcome indicators provide more global measures of care (whereas process indicators tend to focus on specific aspects of care) and as such, may seem to be more comprehensive measures of quality.

Despite the appeal of outcome indicators, several shortcomings need to be born in mind. Differences in outcome can be due to factors other than differences in care. Many factors affect outcomes and so providers may not feel accountable for them. Where many different teams or individuals are involved in care, it can be hard to determine the individual effects of each on the health outcome. Factors related to the patient and outside of the control of the provider (e.g. socio-economic status or concordance) also affect outcomes. Risk adjustment for differences in patient case-mix needs to be carried out in order to compare the performance of different health care providers. Complex statistical techniques, such as modelling, can be required to do this and the method is based on the assumption that all factors are known and can be measured. Finally, many outcomes of importance can be long term, making it difficult to judge the quality of current or recent care.

Process indicators are easier to develop and analyse than outcome indicators as they do not require case-mix adjustment. They are less susceptible to influence from external factors and therefore health care providers feel more accountable for them and they are easier to interpret. A key issue for process indicators is that, in order to measure quality, the processes of care which they represent need to be clearly related to important outcomes. As such, process indicators should ideally be evidence-based. However, high quality evidence linking process to outcome is not always available and so the effect of care on outcomes therefore has to be assumed rather than known.

A more detailed comparison of process and outcome indicators and the situations in which each may be useful can be found in Mant (2001) and Rubin (2001).

The 'anatomy' of a quality indicator

Regardless of whether the quality indicator is a process or outcome indicator, it will be made up of several different parts. The anatomy of a quality indicator is shown in box 2.2 below.

Box 2.2 'Anatomy' of a quality indicator (derived from Campbell 2002 and NHS Institute for Innovation and Improvement 2008)

Indicator:	An explicit measurable statement of the quality of care given. Relates to a single outcome or process of medical care. Clearly defined and unambiguous.
Definition:	Describes how the indicator is constructed
Information sources:	Details the source(s) of the data required to construct the indicator
Standard:	Level of concordance with the indicator
Target standard:+	Set prospectively. Stipulates the standard that providers are expected to meet.
Exceptions:	Situations where the indicator may not be expected to apply, such as contraindications or patient refusal.

+ A target standard may not always be specified. For example, bench marking can be used to compare standard achieved by similar organisations or systems.

Quality indicators can be measured at many different levels, such as for individual practitioners, teams, geographical areas or services.

Indicators are usually based on numbers or numerical techniques. Indicators are most commonly expressed as a proportion or percentage, such as the percentage of eligible patients who have received an intervention (process) or experienced an outcome. They may also be expressed in other ways such as absolute numbers (e.g. rare, but particularly serious events), dichotomous measures (e.g. done, not done) or scaled data (e.g. scores on a patient satisfaction questionnaire).

Example: Structure of a quality indicator

Indicator:	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.
Definition:	$\frac{\text{No of pts with documented ABPI measurement}}{\text{No of pts on caseload with leg ulcer}} \times 100 (= \%)$
Information sources:	ABPI measurement documented in leg ulcer care pathway form. Patients with leg ulcer can be identified from district nursing caseload register.
Standard:	90%
Target standard:	85%
Exceptions:	Known severe arterial disease. Record of refusal of Doppler measurement recorded in patient's notes.

Characteristics of a good indicator

The final background information needed before using the framework is knowledge of the criteria for a good quality indicator. These include:

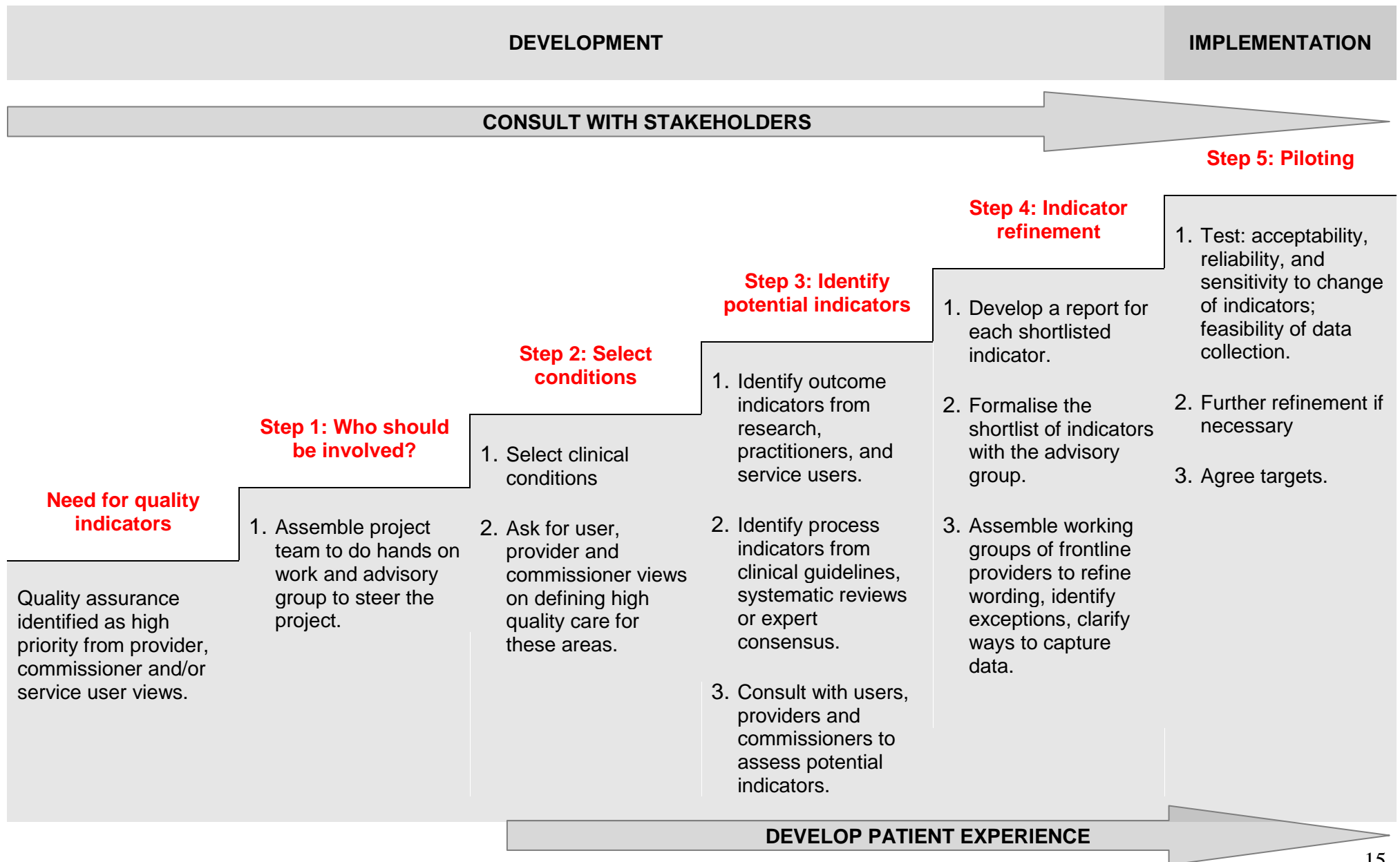
- Within the scope of influence of clinicians and/ or their teams
- Evidence of variation in care across clinicians or teams
- Recognised as important by service users, commissioners and community service managers
- Acceptable to clinicians, commissioners and community service managers
- Measurable
- Evidence of clinical benefit
- Impact on health gain (volume, health inequalities)
- Low risk of 'perverse incentives' or gaming

Having given an overview of key issues in thinking about indicator development, the next part of this chapter presents the framework that we developed.

Framework for developing quality indicators in community services

Having discussed some of the key issues in developing quality indicators, the remainder of this chapter describes the framework we designed for the development of quality indicators for NHS community services. Figure 2.1 shows an overview of the steps involved. Each of the steps is then described and examples with the prototype of the district nursing service given in grey boxes.

Figure 2.1 Steps to develop quality indicators in community services



The framework

Introduction: Need for quality indicators

Before quality indicators are developed, a need for indicators must first be identified. In terms of community services, as they cover a very broad range of clinical areas and types of staff with differing levels of specialisation, generally it will not be feasible or appropriate to employ universal indicators which can be used to judge the quality of all community services. Developing indicators along a pathway might be possible, which would have the advantage of working across a number of services, but this is only viable for those patient populations or conditions where pre-existing pathways are in current usage. So given that the need for quality indicators is most likely to arise for a particular service(s), reasons for prioritising a particular service might include:

- high volume service (in terms of patients seen, staff employed or budget)
- contract due for renewal
- new guidance available nationally or locally which may have an important bearing on the service
- concerns about quality of the service, such as patient complaints or critical incident reports
- little done within the service in terms of quality initiatives in the past (e.g. newer services may have quality initiatives included within their service specification).

Example: choice of district nursing service

Following focus groups with head of community services, meetings with commissioners, and interviews with NHS Bristol Health Interest Group, the District Nursing service was chosen as a test case for the project. The service was selected as it is a high volume service, the role of district nurses has been affected by policy changes (such as the development of a range of intermediate care services and the move to enable more care to be carried out at home) and the district nurse service does not currently have a service specification which includes quality assurance measures. In addition, the professional lead for district nursing and her team appeared to welcome the opportunity to participate.

Step One Who should be involved?

Once it is clear which service should be the focus, the next step is to convene a project team (to do the hands-on work) and an advisory team. At a minimum, this should include:

- one or two frontline clinicians from the service
- the professional lead or lead manager of the service
- a representative of the general community service management team
- a commissioner with responsibility for community services
- the project lead (who may fall into one of the previous categories)

Other possible members could include:

- two or more service users
- GP
- Specialist nurses or specialist clinical professionals in the clinical conditions selected
- Academics with a background in the service area or an interest in either the clinical condition or quality initiatives
- NHS librarians – if they have the capacity to contribute to searches.

Example: convening advisory group and project team

Our advisory team included: a district nurse, the professional lead for the district nurse service, the Director of Nursing for Bristol Community Health, the Director of Commissioning for NHS Bristol, an academic GP involved in developing GP Quality and Outcomes Framework (QOF) and three service users – one of whom is a performance manager for a local authority and another who is a former nurse. In addition, as the University of Bristol was commissioned to carry out the work, we had a much smaller ‘hands on’ project team of academics. This included: a researcher with systematic review experience, a health visitor from the University of the West of England, a GP involved in GP QOF research and a researcher with a policy background. We also linked into the District Nursing Strategy group, a pre-existing group of about 15 district nurses and the service professional lead who met on a regular basis to improve practice.

Step Two Select conditions

Once the advisory group and project team have been assembled, the next step is to select the conditions of interest. Developing, implementing and collecting data on quality indicators is very time consuming and resource intensive. For this reason, we recommend that quality indicators are developed for a small number of clinical areas as opposed to for the whole spectrum of activities undertaken by the service. A clinical area may represent an entire group of patients with a particular diagnosis (e.g. diabetic patients) or a subset of these patients (e.g. all diabetic patients for whom the district nurse administers insulin), which should be tightly defined.

Reasons for choosing a clinical area include:

- conditions which are most frequently treated by the service clinicians
- the clinical area is of high cost or risk to staff or service users
- evidence of a serious quality problem, such as patient complaints or high complication rates
- good evidence available to inform standards, for example systematic reviews or other national guidelines
- topic is pertinent to national or local policy initiatives
- patient group includes those at highest risk for poor outcomes

Example: Choice of clinical areas

We chose the three clinical areas of wound, end of life and diabetes care, as these were the main areas of work for district nurses. We also considered catheter care, but rejected it as we wanted only three conditions a local audit and national information suggested that district nurses did less work in catheter care than in the other three clinical areas. However, catheter care could be an area for future development. Within wound care, we chose to focus on leg ulcers and pressure sores, as surgical wounds are only a very small percentage of district nursing caseload.

Having selected the clinical conditions, service users, frontline clinicians, commissioners and community service managers can offer useful information on how to determine high quality care in these clinical conditions.

Step Three Identify potential indicators

Once the clinical conditions have been selected, the next step is to identify potential indicators. Several activities occur in this step including:

- Identifying outcome indicators from researchers, practitioners and service users
- Identifying process indicators from clinical guidelines, systematic reviews or expert consensus
- Consulting with service users, providers and commissioners to assess potential indicators

These steps can be iterative, as, for example, provider views on potential indicators may lead back to a literature search or new best practice guidelines might come out several months after the initial search prompting further additions to the list of potential indicators. Several of these activities might occur concurrently, as well. The aim of this step is to first identify all possible indicators and then to modify the list to a manageable number.

Identifying outcome indicators (Step 3.1)

Outcome indicators are derived from outcomes that represent the consequences of care given and include measures of health status and of patient experience. Adverse events can also be used as outcome indicators (with a lower score or frequency indicating higher quality).

Outcome indicators should be:

- Clearly linked to care given
- Considered to be of value to the patient and/or service.
- Ideally, they should occur soon after delivery of care in order to be attributed to care given, and indicate current/recent quality.
- Expected to occur frequently or the population for whom the outcome is possible should be large.

Intermediate or proxy indicators may sometimes be employed, for example when the eventual outcome occurs far in the future or is not able to be measured. Intermediate indicators should be strongly linked to the eventual outcome.

Suggested methods for identifying outcome indicators:

- Questions to ask – what is the service trying to achieve for these patients? What would be considered ‘success’? What would be ‘failure’?
- Look at major trials/systematic reviews to see which outcomes have been chosen as most important? (Also consider: are they feasible to measure in practice, considered relevant by patients, or important by clinicians).
- Speak to experts - research groups, clinical experts, relevant organisations, manufacturers
- Ask service users which outcomes are most important to them.

Outcome indicators should be tightly defined, clearly specifying the patient group of interest, and the outcome of interest, and including any necessary definitions.

Example: Identifying outcome indicators

Indicator: Venous leg ulcers should heal within 24 weeks of diagnosis

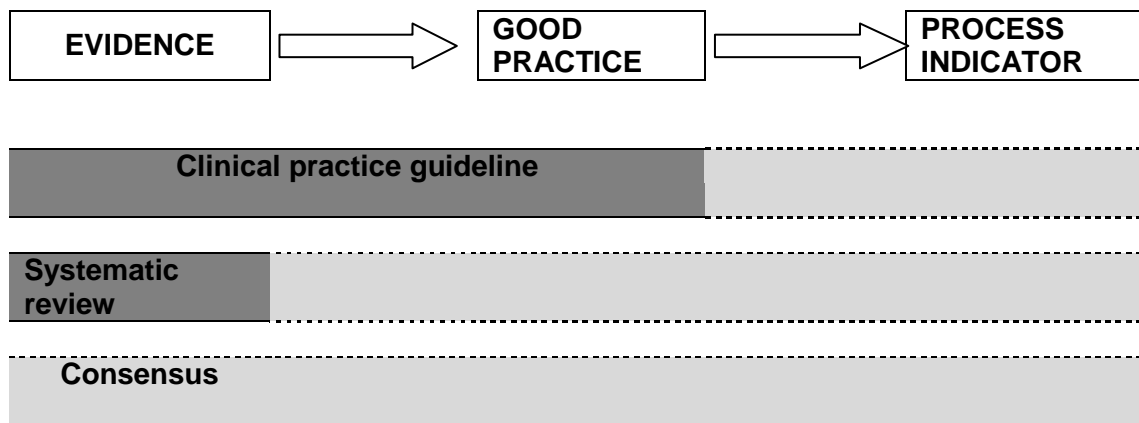
Length of time a wound takes to heal is a commonly employed outcome within major clinical trials of leg ulcer interventions. This was confirmed by a discussion with an academic researcher in wound care. A tissue viability nurse confirmed that patients with leg ulcers that were not healed within this time frame would be referred to the tissue viability service for specialist treatment.

Identifying process indicators (Step 3.2)

The way to identify potential outcome indicators differs from that of process indicators. Process indicators can be derived from statements of good practice. Good practice is determined from evidence or, where suitable evidence does not exist, from expert consensus.

Figure 2.2 illustrates three methods of developing process indicators: clinical practice guidelines, systematic reviews and consensus. The methods appear in the figure in order of preference.

Figure 2.2. Hierarchical model for developing process indicators



Clinical practice guidelines contain recommendations of good practice, which can be used as a source of process indicators. As clinical practice recommendations generally specify an action that should be taken together with the target population or the circumstances in which it applies, they may need little or no development to be turned into good process indicators.

In the absence of suitable guidelines, systematic reviews of evidence can be used to determine good practice recommendations (and thus process indicators). Where no good quality evidence exists, good practice can be determined through expert consensus.

The three methods are described in the sections below.

Clinical practice guidelines to develop process indicators

Well-developed clinical guidelines are an excellent source for potential process indicators. Such guidelines are based on systematic reviews of evidence or expert formal consensus. Generating recommendations for practice involves making informed decisions about the benefits, harms and likely resource implications of interventions, often requiring information and experience that may not be contained within the evidence itself. Guideline developers are typically experienced in such decision making processes and

many guidelines are ratified by expert consensus or stakeholder consultation. Hence, good quality guidelines should be considered the first port of call for identifying process indicators.

Useful websites and search engines for identifying clinical practice guidelines can be found in the box below. Some patient organisations also have sections on their websites.

Box 2.3 Sources of clinical practice guidelines

National Institute for Health and Clinical Excellence (NICE) www.nice.org.uk

Scottish Intercollegiate Guidelines Network (SIGN) www.sign.ac.uk

NHS Evidence's National Library of Guidelines
<http://www.library.nhs.uk/GUIDELINESFINDER/>

Department of Health <http://www.dh.gov.uk/en/Healthcare/index.htm>

U.S. Agency for Healthcare Research and Quality's (AHRQ) National Guideline Clearinghouse <http://www.guideline.gov/>

eGuidelines <http://www.eguidelines.co.uk/index.php>

Example: Sources of guidelines on wound care

We identified two guidelines from the NICE website:

- 1.NICE (2005) CG29: Pressure ulcers: The management of pressure ulcers in primary and secondary care
2. NICE (2008) CG74: Prevention and treatment of surgical site infection.

We also identified one guideline from the SIGN website (publication 26, 1998) on the care of patients with chronic leg ulcer. This was not used to develop process indicators, as it was published prior to other guidance that we identified on leg ulcers. Both sets of guidance were compared to assess overlap.

We searched a professional website relevant to District Nursing (Royal College of Nursing) and identified one guideline:

- 1.Royal College of Nursing (2006) The Nursing Management of Patients with Venous Leg Ulcers.

We spoke to service staff, who identified two further sources of practice guidance

- 1.Bristol Community Health Wound Management Formulary (2009)
- 2.Bristol PCT Leg Ulcer Care pathway

A large number of clinical practice guidelines are now available, developed by a range of different organisations, and of varying quality. It is recommended that full versions of guidelines (including overviews of the evidence, details of the methodology used and judgements made) are consulted if available as this will assist greatly with making judgements about quality and applicability.

The quality of guidelines refers to “the confidence that the potential biases of guideline development have been addressed adequately and that the recommendations are both internally and externally valid, and are feasible for practice”. (Cluzeau et al, 2001). It is recommended that full versions of guidelines (including overviews of the evidence, details of the methodology used and judgements made) are consulted, if available, as this will assist greatly with making judgements about quality and applicability.

It may be reasonable to assume some organisations are using robust development methods (e.g. national guideline development agencies such as NICE or SIGN). However, for other sources, the quality of the guideline should be considered before indicators are developed. Factors to consider include:

- the methods used to identify, select and synthesise evidence
- the degree of peer review or stakeholder consultation
- whether an explicit and sensible process was used to develop practice recommendations from the evidence (such as, for example, weighing up the relative importance of different outcomes).

The quality of guidelines can be evaluated more formally using tools such as the AGREE instrument (Cluzeau et al 2001), which is designed to capture the quality of guidelines along six separate dimensions and is freely available online (<http://www.agreecollaboration.org>).

Once the quality of the guidelines has been assessed as acceptable, the applicability of practice recommendations needs to be considered to ensure that they are relevant in terms of both patient characteristics and clinical setting (for example, a recommendation for care of a hospitalised patient may not be appropriate or feasible for a patient with the same condition in the community). A consideration of the context in which the recommendations were made may be particularly important, if the guidelines were issued outside of the UK.

If the clinical guidelines have been assessed as high quality and are appropriate to the service population, selection of particular recommendations needs to take place. Clinical guidelines can contain large numbers of practice recommendations and it may not be practical or possible to develop quality indicators for all recommendations. Select those recommendations that:

- Apply to the patient group and clinical setting
- Fit in well with the service specification
- Involve significant proportions of staff time
- Aim to choose snapshots that give a picture of the whole

- Will provide important impact on health outcomes or patient experience
- Suggest variations in care
- Are measurable

Avoid those that:

- say ‘may’ or ‘should consider’. Indicators should apply universally to a group or subset of patients if it is to be a fair indicator of quality.

Systematic reviews to develop process indicators

Where guidelines do not exist for aspects of care considered to crucial to the service for the clinical areas chosen, it may be possible to develop quality indicators from published systematic reviews. Useful websites and search engines for finding systematic reviews can be found in the box below.

Box 2.4 Sources of systematic reviews

Cochrane Collaboration:	International not-for-profit organisation that produces rigorous systematic reviews of healthcare interventions. The reviews can be found in the Cochrane Database of Systematic Reviews (CDSR) within the “Cochrane Library”, published on line at http://cochrane.co.uk/en/clib.html .
NHS CRD Database for Abstracts of Reviews of Effects (DARE):	Specially written abstracts of systematic reviews of health care interventions that incorporate a critical assessment of the review. Produced by staff at the NHS Centre for Reviews and Dissemination. DARE can also be searched via the Cochrane library. http://www.crd.york.ac.uk/crdweb/Home.aspx?DB=DARE
National Institute for Health - Health Technology Appraisal (HTA) program:	http://www.nchta.org/project/htapubs.asp
Bibliographic databases e.g. Pubmed, Medline, EMBASE	Staff employed by NHS England can search these databases through the “Healthcare Databases Advanced Search” section of the NHS Evidence website http://www.evidence.nhs.uk/

As with clinical guidelines, systematic reviews can vary in quality. A well-conducted review uses “explicit, systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings from which conclusions can be drawn and decisions made.” (Green et al 2008). Checklists for appraising the quality of systematic reviews can be found in the

NICE Guidelines Manual 2009 (appendix C) and NHS Centre for Reviews and Dissemination Report 4 (see <http://www.nice.org.uk/aboutnice/howwework/developingniceclinicalguidelines/clinicalguidelinedevelopmentmethods/GuidelinesManual2009.jsp>) and (<http://www.york.ac.uk/inst/crd/report4.htm>).

Other issues to consider in addition to the quality of a systematic review are:

- Does the review report all of the outcomes needed to make a decision about the intervention (including those that patients consider important)?
- What other information is needed to make a decision?
- What are the characteristics of the patients who have been included in the review?
- What are the contextual issues (such as resources available, payment structure, cultural, geographical) that may make a difference for some interventions?
- Is the review up to date? If not, it may be appropriate to update.

Having determined that a review is suitable for use, the next step is to use the evidence to determine best practice. Some degree of judgement is always involved in translating evidence into good clinical practice. Factors to consider include:

- The quality of the evidence and whether findings are consistent across studies
- Applicability to the patient group/health professional/service
- Relative importance of outcomes and trade off between positive and negative consequences
- Values and preferences of service users
- Trade off between potential for health benefit and resource use

Further guidance on using evidence to determine best practice can be found in chapter 9 of the NICE Guidelines manual ('Developing and wording guideline recommendations', NICE 2009) and in Chapter 12 of the Cochrane Handbook ('Interpreting results and drawing conclusions' <http://www.cochrane-handbook.org/>).

Finally, if no suitable reviews are identified, there is the option to do a new systematic review. Carrying out a systematic review is a resource-intensive activity and requires a wide range of expertise (information retrieval, systematic review methodology, knowledge and practice in the clinical area) and it is recommended that help is enlisted from those with the necessary skills (such as NHS librarians, Research and Development staff) or the work is commissioned out to an external agency with the necessary expertise.

Further information on conducting systematic reviews can be found in the Cochrane Handbook for Systematic Reviews of Interventions (version 5.01, 2008, <http://www.cochrane.org/resources/handbook/>) and the NHS Centre for

Reviews and Dissemination's Guidance for Undertaking Reviews in Health Care (http://www.york.ac.uk/inst/crd/systematic_reviews_book.htm).

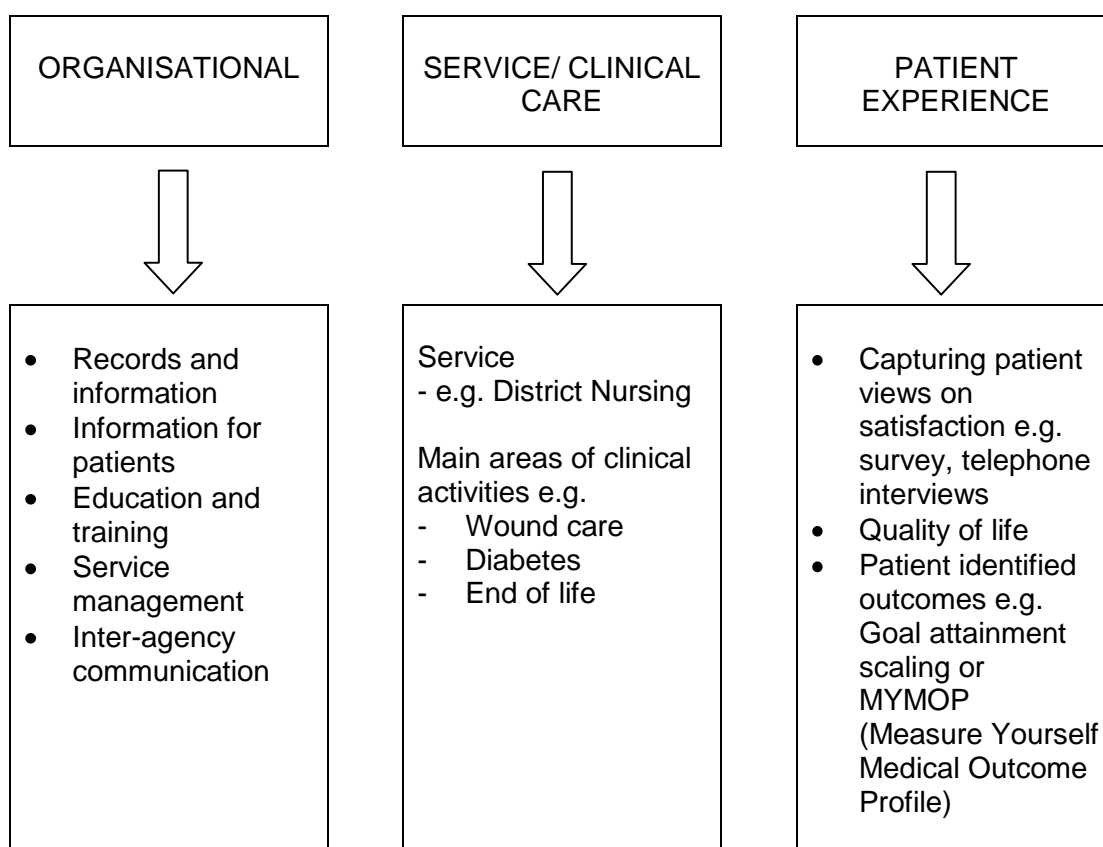
Expert consensus to develop process indicators

If clinical guidelines or systematic reviews are not available or of sufficiently high quality for the clinical condition under indicator development, then consensus methods, such as Delphi techniques, can be used. These usually involve identifying a group of experts, canvassing for views of best practice, turning those views into statements (or potential indicators), getting consensus on the importance and/or relevance of those statements through repeated questionnaires and refining the resulting indicators with the assistance of frontline clinicians. A less formal process might involve asking local clinical specialists with an interest in the relevant clinical condition or contacting academics who specialise in the clinical conditions under study.

List and categorise indicators

As new sources of indicators are discovered, quality assessed and potential indicators are selected, an on-going list is needed to keep track. The following model, derived from the GP Quality and Outcomes Framework and loosely based on Donabedian's structure-process-outcome model, helps to organise that list by categorising the emerging indicators as 'organisational' (structural), 'service/clinical care' (process and outcome) and 'patient experience' (outcome). The advantage of this model is that the organisational factors are clearly defined and patient experience is highlighted, so that these aspects do not get lost in the indicator development process.

Figure 2.3 Ways to categorise indicators for community services



Example: Categorising emerging indicators

Early on, we identified several training indicators that were labelled as ‘organisational’. Other potential indicators on clinical activities such as setting up syringe drivers for end of life patients and recurrence rates of leg ulcers fell clearly in the ‘service/ clinical care’ domain. We did not expect to find any indicators for patient experience, but the inclusion of the patient experience box did mean that we were continually looking out for ways to capture patient views and priorities.

Consult with users, providers and commissioners (Step 3.3)

To assess potential indicators against predetermined criteria (see ‘characteristics of a good indicator’), the views of frontline practitioners, senior management teams, commissioners and service users need to be sought. Various methods can be used to gather these views including meetings, interviews and surveys. Potential indicators that are obviously not helpful can be deleted from the list out right. Indicators where there are differences of opinion should be kept and these differences recorded. Queries raised by one

group can be feedback to other groups. All views should be recorded and fed into the indicator reports in the next step.

Example: Getting feedback on emerging indicators

We carried out several different activities to get the perspectives of a wide range of stakeholders. The District Nursing Strategy Group formed into three working groups, one for each of the main conditions, to look at the initial lists of potential indicators. A sub-set of this group also met a few months later to comment on the most current list of potential indicators. To ensure that we got the views of district nurses across Bristol, we carried out a survey with all district nurse team leaders. We had individual meetings and telephone calls with the Director of Commissioning and commissioners with a remit for the clinical conditions. We had a meeting with senior managers from Bristol Community Health to get their feedback. We also carried out telephone interviews with district nurse patients.

Step Four Indicator refinement

Having selected the conditions, identified potential indicators and consulted widely to narrow the potential indicators down to a manageable list, the next step involves refining the remaining indicators. Several activities occur in this step including:

- Developing indicator reports
- Formalising a shortlist
- Refining the indicators on the shortlist

Developing indicator reports

Reports for each individual indicator are useful to draw together information from multiple sources. The aim of these reports is to provide an argument for or against each indicator and to include careful documentation of the views of relevant stakeholders on acceptability and feasibility. These reports may include information such as:

- Source of original recommendation
- Level and type of research evidence underpinning that recommendation
- Frontline practitioner views
- Management views
- Commissioner views
- Data issues

Example: Developing indicator reports

Our initial indicators reports included five categories:

- Evidence of benefit
- Professional perspectives
- Perceptions of current practice
- Fits in with PCT and national priorities
- Views of Bristol Community Health managers
- Comments

After the refinement meetings, we added two further categories:

- Original indicator
- Measurement

To see the indicator reports we developed for this project, see Appendix 2.

Formalising the shortlist

After the indicator reports are developed, a group made up of those with a range of perspectives can finalise the shortlist of indicators, based on the information contained in the indicator reports. Those perspectives may include service users, managers from commissioning and community services and clinicians. This group can be reconvened virtually or through a face to face meeting. The aim is to get a final decision on which indicators to keep and which to drop.

Example: Finalising the shortlist

We reconvened the larger advisory group with members from NHS Bristol, Bristol Community Health, district nursing (manager and clinician), a GP and the project team. All of the clinical members were given the indicator reports and asked to decide if we should keep or delete the indicator. Having made these decisions prior to a face to face meeting, we then identified which indicators were clearly 'keep', which ones were 'delete' and then the group discussed the indicators where opinion was mixed or indicators were rated 'not sure'. At the end of the meeting, we had a final shortlist of indicators ready for the refinement stage. To see a list of all of the indicators considered and subsequently dropped, please see Appendix 3.

Refining indicators on the shortlist

Having identified a shortlist, the next stage is to re-word unclear statements, identify sources of data to measure the indicators, work out numerators and denominators to measure the indicators, clarify exceptions where the indicator should not apply (exception reporting) and illuminate any potential for gaming or perverse incentives. Practitioners from the service are ideally placed to provide this information.

Example: Refining the indicators

We set up three meetings with district team leaders to refine the indicators. Each meeting covered one clinical area and so we also invited specialist nurses to get their expertise and give us a clearer understanding of what 'best practice' should be. These specialist nurses included two Macmillian nurses for end of life care, two tissue viability nurses for wound care and one diabetes specialist nurse for diabetes. We also asked the district team leaders and the specialist nurses to bring along any forms relevant to the clinical area, so that we could clarify what data are currently being collected and how forms could be modified to collect data to feed into the indicators.

Step Five Piloting

The refinement of the indicators is the final phase of the development of quality indicators. The piloting phase is the first stage in implementing the indicators. Issues around piloting are discussed in section six of this report.

Patient experience

Thus far in this section, we have given detailed information on the development of organisational and clinical indicators. However, in tandem, ways of measuring patient experience also need to be developed, to derive 'experience of service' indicators.

Patient experience is another type of outcome data. Patient experience can be categorised into: 1) patient satisfaction, 2) quality of life, 3) patient derived outcome measures.

Patient satisfaction tools can be used to rate different aspects of service provision e.g. information giving, access to care, cleanliness etc. Ideally, patient satisfaction should relate to the organisational and clinical indicators, as a further way of measuring the impact of process interventions on quality of care. Although there is considerable debate about the reliability of patient satisfaction measurements, currently we have few other tools available to feed in patient viewpoints.

Methods to gather information on patient experience include interviews, focus groups and surveys. Although stripped of any context, surveys can be easily developed into quality indicators. Service users respond to a series of short

questions and then the indicator becomes the proportion of service users who responded to each question in a particular way e.g. proportion of services users who stated that their caregiver was adequately informed about their condition. Patient satisfaction surveys for many services already exist and rather than devising a completely new questionnaire, it may be possible to modify existing questionnaires. Dr. Foster provides a database of possible questions and the Picker Institute is internationally recognised for its work in developing, administering and analysing patient experience surveys.

Quality of life can be measured by a number of tools, such as EQ-5D and SF-36. These are increasingly being used in the acute sector to measure standards of service provision. Both EQ-5D and SF-36 are generic and can be used for any health condition. They each measure several domains, such as pain, ability to carry out daily tasks, mental health. However, they may not be appropriate for every service. For example, palliative care service users may no longer be carrying out daily tasks and so it would be unfair to judge the quality of the palliative care service in this way.

With patient derived outcome tools, service users set their own goals that they want to meet with the help of service providers. These goals may be personal, such as being able to walk up to the shops, or health related, such as healing an ulcer quickly. At the initial or second visit, service providers work with patients to identify realistic and achievable goals. These are then measured again at a future visit (i.e. three months hence). Examples of patient derived outcome tools include Measure Yourself Medical Outcome Profile (MYMOP) and Goal Attainment Scaling.

Example: Capturing the experiences of district nursing service users

We interviewed service users from the NHS Bristol Health Interest Group as well as current district nursing patients to identify key areas for quality assessment from patient perspectives and to canvass opinions about the usefulness of patient derived outcome measures with district nurse service users. We carried out a literature search to compare local views on key areas for patient (dis)satisfaction with district nursing services with those published in the literature. We also searched the literature to find patient derived outcome measures suitable for district nursing service users.

We looked at various ways of capturing patient satisfaction, including Discovery Interviews and surveys. The advisory group decided that a survey would be the best method, so we collected examples of district nursing questionnaires from Picker Institute and selected potentially suitable questions from Dr. Foster. We drafted a pilot questionnaire, which is now ready for piloting.

The advisory group was also keen to pursue the possibility of using patient derived outcome tools with district nursing service users. We identified two possible tools, MYMOP and Goal Attainment Scaling. These need to be tried out in practice and compared with district nurses and their patients, before a final decision is made.

SECTION THREE

District Nursing Service Indicators

Introduction

The following section details the district nursing indicators. These are presented in two ways. The first is a list of all of the indicators. The second is a more detailed list of the indicators broken down into numerator/denominator, information sources and exceptions. Both lists are organised into three parts: organisational indicators that relate to the entire service; clinical indicators relating to wound, end of life and diabetes care and patient experience indicators. For further information about the anatomy of an indicator, please refer back to section two.

District Nursing Service quality indicators

Organisational

OG1: 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 indicators

Diabetes

DB1: 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 at 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 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.

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 (+ code) • GP name • Problems/concerns • Anticipated needs • Information given/carer issues • DS 1500 date • CNS • Hospice/SPC • OOH handover form date sent • Preferred place of care stated + 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.

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.

WC14: 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 6 weeks of diagnosis (or of joining DN caseload).

WC 40: Reduction of pain should be observed with 4 weeks.

Patient experience indicators

PE3: Proportion of service users who stated that the district nurse had all the necessary information about the service user and his/ her health needs.

PE4: Proportion of service users who stated that the district nurse had all the equipment and dressings needed.

PE5: Proportion of service users who stated that the district nurse was knowledgeable and competent.

PE6: Proportion of service users who stated that the district nurse provided health advice or information about his/her condition.

PE7: Proportion of service users who stated that they were involved as much as they wanted to be in decisions about their care and treatment.

PE8: Proportion of service users who stated that their district nurse treated them with respect and dignity.

PE9: Proportion of service users who were able to contact a district nurse when needed, including outside of normal working hours.

PE10: proportion of service users who rated the district nurse service as very good or excellent.

ORGANISATIONAL INDICATORS

OG1: 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.

Numerator -----	No. of registers -----
Denominator	No. of DN teams
Information sources:	Registers held in practices.
Exceptions:	None.

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

Numerator -----	No. of pts with documented common assessment framework -----
Denominator	No. of pts on caseload with ≥ 3 visits
Information sources:	Common assessment framework held in DN office.
Exceptions:	Patients who have less than 3 visits e.g. to check on healing of surgical wound.
Note:	Alternative measurement could be based around % completion of form (i.e. denominator - no. of pts x number of sections on form; numerator – no. of completed sections).

DIABETES PROCESS INDICATORS

DB1: All diabetic patients should have a record of an individual care plan, reviewed at least annually.

Numerator -----	No. of diabetic patients with a complete care plan -----
Denominator	No. of diabetic pts on the DN caseload
Information sources:	Diabetic pts on the caseload can be identified from the register (held in DN office). Care plans are held in patients records in their home.
Exceptions:	Patients for whom the DN is not the key link e.g. care home residents. Patients hospitalised for a long period (over 1 month).

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.

Numerator No. of diabetic pts with record of HbA1c within 6 months

Denominator No. of diabetic patients on the DN caseload.

Information sources: Diabetic patients can be identified from register in DN office. HbA1c measurement can be identified from GP records.

Exceptions: Practice nurse or GP takes lead in diabetic review.

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.

Numerator No. of patients with a leaflet in the care plan

Denominator No of diabetic patients on the DN caseload.

Information sources: No of diabetic patients on the caseload can be identified from the register in the team office. Patient records could be checked for availability of leaflets.

Exceptions: None.

DB 26: All diabetic patients should have a formal review carried out at 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).

Numerator No. of diabetic pts with a completed annual review

Denominator No of diabetic pts on the DN caseload.

Information sources: Diabetic patients on the caseload can be identified from the register in the DN's office. Annual review details are held in clinic notes or entered into GP computer system.

Exceptions: Patient refusal. Cognitive impairment.

DB 31: Patients with a blood pressure measurement of above 145/80 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.

Numerator No. of patients with record of discussion BP with GP

Denominator Diabetic pts on caseload with three or more consecutive recordings of BP > 145/80 in a two week period

Information sources: Diabetic patients on the caseload can be identified from the register in the DNs office. BP will be recorded in patient's notes. GP discussion in patients' notes (can validate from GP records).

Exceptions: None.

END OF LIFE CARE PROCESS INDICATORS

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.

Numerator No. of pts discussed with other teams/services

Denominator No. of end of life pts on caseload

Information sources: Caseload register and patient records.

Exceptions: None.

Measurement issues: Not everyone will be discussed with the GP, for example, patients who are stable. DNs also discuss end of life patients with other services such as hospices and specialist care. Discussions are not always documented. Might only put something in the records if there is an issue arising or action that needs to be taken. This might change when RiO is implemented. Indicator could be included in the pilot to see if it is feasible.

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 (+ code) • GP name • Problems/concerns • Anticipated needs • Information given/carer issues • DS 1500 date • CNS • Hospice/SPC • OOH handover form date sent • Preferred place of care stated + date.

Numerator No. Of patients with fully completed details

Denominator No. of patients on the caseload who are receiving end of life care

Information sources: Register held in DN office.

Exceptions: Patients on the caseload for end of life care who have had < 3 visits from DN service.

Measurement issues: It is not always possible to elicit preferences on preferred place of care from patients.

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

Numerator ----- No. of patients whose syringe driver was set up within four hours

Denominator -----
No. of pts who have a syringe driver in place

Information sources: Patient records in their home should contain the date/time the syringe driver was decided upon and date/time it was set up.

Exceptions: Patients for whom anticipatory prescribing was not in place. Patients who refuse a syringe driver.

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

Numerator ----- No. of pts with documented evidence of carer support offered

Denominator -----
No. of pts on the caseload receiving end of life care

Information sources: Record in patients' notes that carer support has been offered.

Exceptions: None.

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

Numerator ----- No. of pts for whom OOH were notified by end of DN shift

Denominator -----
No. of pts who have a syringe driver in place

Information sources: Patient records can be used to identify which patients had a syringe driver set up and when. Cross check these against OOH records to determine if/when they were notified.

Exceptions: None.

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

Numerator No. of pts who die in preferred place of care

Denominator No. of pts who have died

Information sources: Preferred place is recorded on the register (EL7) and also on GSF form if the team uses this. Most GP surgeries have a death register which would show where the patient died.

Exceptions: Patients who have not indicated their preference.

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

Numerator No. of pts with adequate symptom control

Denominator No. of pts on the caseload receiving end of life care

Information sources: Patient notes.

Exceptions: Adequate symptom control is never achieved for some patients.

Measurement issues: Clinical expertise and judgement required to determine from records whether symptoms were adequately controlled.

EL26 : Carer(s) felt supported.

Numerator No. of pts whose carers felt supported

Denominator No. of pts who died during the audit timeframe

Information sources: Carer survey or follow-up visit/call after death. Suggested question "Is there anything you feel you needed but you didn't get?"

Exceptions: None.

WOUND CARE PROCESS INDICATORS

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.

Numerator -----	No. of pts with documented Waterlow assessment -----
Denominator	No. of pts on caseload with EPUAP grade 1 or above

Information sources: DN patient register. Documented assessment in patients' notes.

Exceptions: None

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.

Numerator -----	No. of patients whose dressing concords -----
Denominator	No. of patients with leg ulcer or pressure ulcer

Information sources: Register and patient records. Check wound formulary and guideline to determine concordance.

Exceptions: Patient refusal.

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.

Numerator -----	No. of pts with documented ABPI measurement -----
Denominator	No. of pts on caseload with leg ulcer

Information sources: DN register. Patient records (documented in leg ulcer care pathway form).

Exceptions: On the caseload for less than six weeks. Record of refusal of Doppler measurement recorded in patient's notes. known severe arterial disease.

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.

Numerator No. of pts with record of ulcer size (initial and ongoing)

Denominator No. of pts on caseload with a leg ulcer

Information sources: Caseload register. Patient records (documented in leg ulcer care pathway form).

Exceptions: 'Absentee' patients e.g. walking wounded, drug users.

WC14: 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.

Numerator No. of pts with complete documented management plan

Denominator No. of pts with confirmed venous leg ulcer

Information sources: Caseload register and patient notes (leg ulcer care pathway – pain assessment in part 4, pain relief in free text, dressings and therapy in part 12).

Exceptions: On caseload less than 6 weeks.

WOUND CARE OUTCOME INDICATORS

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

Numerator No of venous leg ulcers that healed within 24 weeks

Denominator No of pts who are/have been on caseload for venous leg ulcer

Information sources: Caseload register.

Exceptions: Large wounds (above 10cm/requiring larger dressing size than standard).

WC 39: Progression of wound bed (slough, dead tissue, colouring) should be observed within 6 weeks of diagnosis (or of joining DN caseload).

Numerator No. of pts showing progression

Denominator No. of pts on caseload with a wound

Information sources: Caseload register and wound care pathway (contains sections for describing wound appearance and item asking if wound is improving. Validate a subsample of “improvers” by cross- checking items on wound appearance).

Exceptions: Non-compliant patients, patients with malignancy, patients with vascular arterial disease.

WC 40: Reduction of pain should be observed with 4 weeks.

Numerator No. of pts whose pain has reduced since initial assessment

Denominator No. of pts on caseload with pressure or leg ulcer

Information sources: Caseload register and patient notes.

Exceptions: Patients refusing systemic pain relief. Non-concordant patients.

PATIENT EXPERIENCE INDICATORS

PE3: Proportion of service users who stated that the district nurse had all the necessary information about the service user and his/ her health needs.

PE4: Proportion of service users who stated that the district nurse had all the equipment and dressings needed.

PE5: Proportion of service users who stated that the district nurse was knowledgeable and competent.

PE6: Proportion of service users who stated that the district nurse provided health advice or information about his/her condition.

PE7: Proportion of service users who stated that they were involved as much as they wanted to be in decisions about their care and treatment.

PE8: Proportion of service users who stated that their district nurse treated them with respect and dignity.

PE9: Proportion of service users who were able to contact a district nurse when needed, including outside of normal working hours.

Numerator -----	No. of repondents who stated 'yes'
Denominator	No. of respondents who answered this question
Information sources:	District nurse patient survey
Exceptions:	None.

PE10: Proportion of service users who rated the district nurse service as very good or excellent.

Numerator -----	No. of repondents who stated 'very good' or 'excellent'
Denominator	No. of respondents who answered this question
Information sources:	District nurse patient survey
Exceptions:	None.

SECTION FOUR

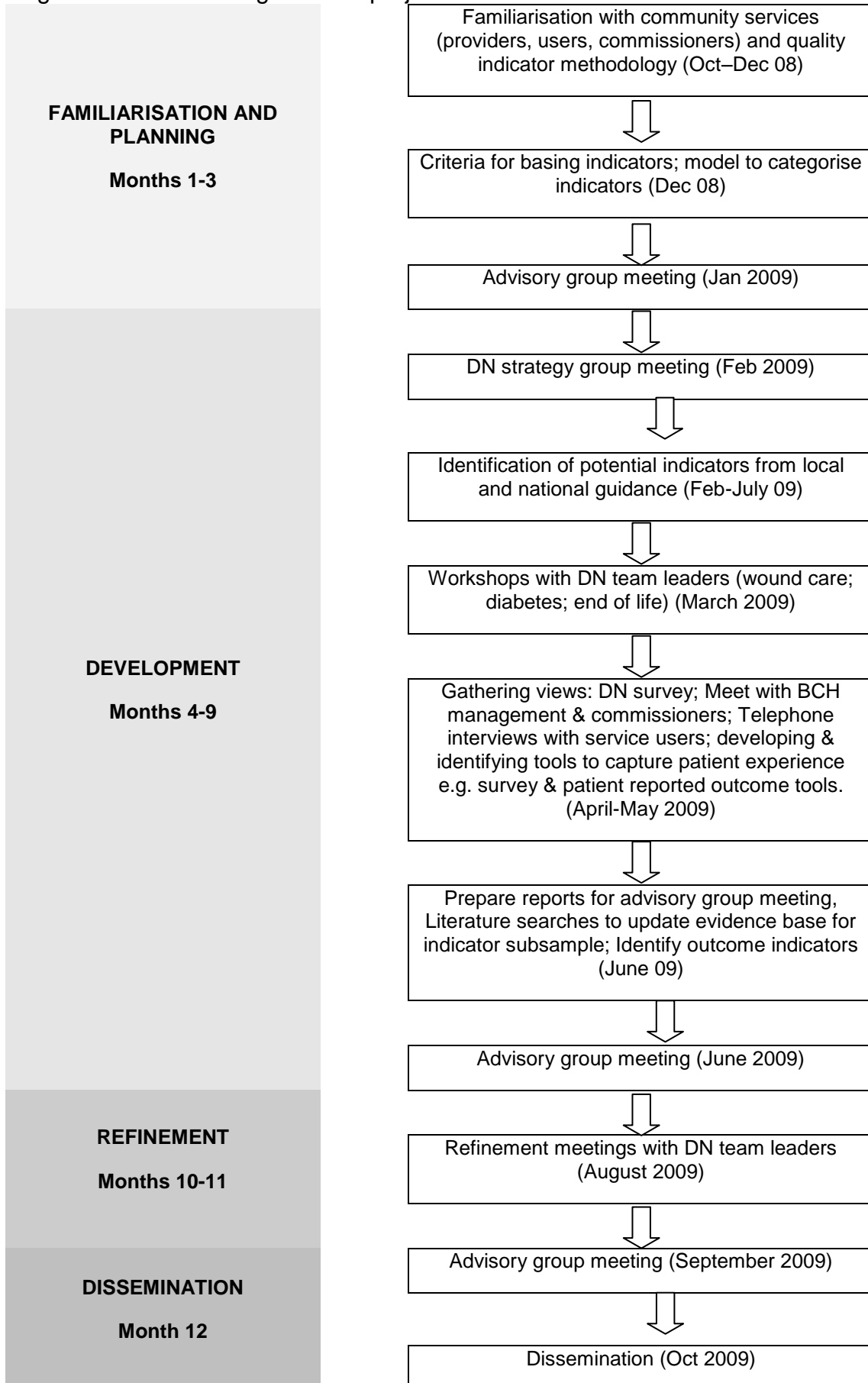
The development process

The project began in September 2008 and lasted for 12 months. The flowchart below shows the main stages of the development process and the timeline for the project. The stages were:

- Familiarisation and planning (months 1-3)
- Development (months 4-9)
- Refinement (months 10-11)
- Dissemination (month 12)

A brief description of each stage follows.

Figure 4.1 Main stages of the project



Familiarisation and planning phase (October – December 08)

During this phase, we carried out several activities that helped to shape the project. These included:

- becoming familiar with community services and quality indicator methodology
- identifying criteria on which to base the indicators
- formalising the direction of the project at an advisory group meeting

Details of each of these follow below.

Becoming familiar with community services and quality indicator methodology

In the first phase of the project, we carried out a range of activities intended to increase our understanding of both community services and quality improvement. These included:

1. Familiarisation with community services and relevant NHS policy
 - We shadowed several community health staff members from services including district nursing, podiatry and physiotherapy.
 - We held individual meetings with community health service staff including a Community Matron and the lead for Learning Disabilities. We also met with a NHS Bristol public participation manager.
 - We read key national and local policy documents on developing quality indicators and community services.
 - We attended 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:
 - We held 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.
 - We met with the NHS Bristol Health Interest Group (service users and carers) and subsequently carried out telephone interviews with six service users and carers.
 - We met the Deputy Director of Commissioning and her team from NHS Bristol.
 - We met with several key Bristol Community Health staff including members of the clinical governance, performance management and learning and development teams.

3. Reading quality indicators/audit literature:

- We searched for information on quality indicators from national and international sources including NHS North West's 'Advancing quality' programme, the General Practice Quality and Outcomes framework, Agency for Healthcare Research and Quality (AHRQ) Quality Indicators, Health Care Commission's 'Better Metrics' project, National Institute for Health and Clinical Excellence and American Nursing Association's 'National Database of Nursing Quality Indicators'.
- We also carried out several searches of the internet and bibliographic databases (e.g. Medline) to define quality, find methodological literature on the development of indicators and locate evaluations of quality indicator programmes.

At the completion of this phase, we came to several conclusions.

1. Good quality care is about much more than improving clinical outcomes. Staff saw good quality care as incorporating clinical effectiveness and safety, but this is embedded in a more holistic approach that is patient-centred and geared towards meeting the patient's physical, mental and emotional needs. Staff described good quality care as supporting and empowering the patient to manage their own health and patient education was seen as an essential part of this process. Good quality information, timely communication and continuity of care were also emphasised.
2. Service users saw high quality community services as incorporating clear management structure and organisation of services; good quality information and timely communication; continuity of care, with particular emphasis on transition points; timely response; well-trained staff who combine a professional approach with kindness and flexibility.
3. Community services are very different, making it difficult to develop universal indicators that apply to all services, particularly for clinical activities. A universal framework for the development of indicators should be applicable though.
4. Clear disparities exist in investment in local community services with older services being less prepared for implementation of policies linking demonstration of quality with income. More recently commissioned services (e.g. intermediate care) already have systems in place to capture data on quality.
5. Other well evaluated quality initiatives such as such as the General Practice Quality and Outcomes Framework (QOF) could be used to guide the development of indicators, whilst ensuring that the framework is both applicable and useful to community services.

6. Community services work to a range of quality guidance e.g. NSFs and clinical guidelines, which could be used to identify potential indicators.

Identifying criteria on which indicators should be based

In tandem with familiarising ourselves with community services, we began to develop criteria for defining 'good' indicators. These were determined from literature reviews, focus groups and interviews undertaken during the familiarisation and planning phase. These criteria were intended to guide the identification and choice of indicators as well as the specification of measurement methods for the chosen indicators. They have been previously listed in section two under 'characteristics of a good indicator'.

Formalising the direction of the project: January 2009 advisory group meeting

Having learnt about community services and devised criteria for choosing indicators, we realised there were several ways to develop the project. At the beginning of January 2009, the advisory group met to discuss the main learning points of the familiarisation and planning stage, to agree the model for categorising indicators (figure 2.3) and to decide the next steps. The advisory group was made up of representatives from NHS Bristol, Bristol Community Health, the district nursing service (manager and clinician), service users, a GP and the project team (which included an academic nurse, an academic GP, a systematic reviewer and a qualitative researcher with a background in policy).

At the January meeting, the group agreed that it would not be feasible to develop universal indicators for all community services (particularly within the clinical care domain) and that the project should focus on one service as a test case. The District Nursing (DN) service was suggested as it is a large service, the role of district nurses has undergone change in recent years, and (unlike more recently established community services) the district nursing service does not currently have a service specification which explicitly includes quality assurance. It was decided that the project would therefore focus on developing indicators for the district nursing service and focus upon the three main areas of clinical activity that district nurses engage in.

Development Phase (January – June 2009)

During this phase, we carried out several activities to move the project forward. These included:

- Attending a District Nurse Strategy Group meeting
- Identifying potential indicators from local and national guidance
- Running workshops for district nurses

- Gathering views on the indicators through surveys and meetings
- Finding outcome indicators
- Identifying ways to capture patient experience and patient derived outcomes
- Preparing indicator reports
- Finalising the shortlist of indicators at the June 2009 advisory group meeting

DN strategy group meeting

In February 2009, we attended a meeting of the Bristol District Nurse Strategy group to introduce the project and to recruit volunteers to help with indicator development. The District Nurse Strategy group is made up of the professional lead for the district nursing service and about 15 district nurses with a keen interest in developing the service. At this meeting, district nurses stated that the wound care, diabetes and end of life care were their main clinical areas and suggested that we set up individual workshops for each one of these clinical areas to move the project forward. These workshops were subsequently scheduled for March 2009 and volunteers for each workshop recruited from the strategy group.

Identification of potential indicators from local and national guidance

To prepare for these workshops, we identified current relevant guidance published by organisations including the National Institute for Health and Clinical Excellence (NICE), the Royal College of Nursing (RCN) and Department of Health (DH). Two Medline searches were conducted for each clinical area (one for district nursing references and one to identify recent systematic reviews and evidence-based guidance). Review lists of relevant Cochrane Review Groups, the NIHR HTA programme, and Joanna Briggs Institute websites were also searched to identify relevant systematic reviews.

A total of 72 potential indicators were identified (28 wound care, 25 diabetes and 19 end of life). The sources of guidance used are listed below.

Box 4.1 Sources of guidance used to develop indicators

Clinical area	Sources of guidance
Wound Care	Bristol Community Health Wound Management Formulary (2009) NICE (2005) CG29: Pressure ulcers: The management of pressure ulcers in primary and secondary care Royal College of Nursing (2006) The Nursing Management of Patients with Venous Leg Ulcers.
Diabetes	NICE (2004) CG15: Diagnosis and management of type 1 diabetes in children, young people and adults NICE (2008) CG66: Type 2 diabetes: the management of type 2 diabetes (update) NICE (2004) CG10: Type 2 diabetes: prevention and management of foot problems
End of life	Department of Health (2008) End of Life Care Strategy – promoting high quality care for all adults at the end of life Gold Standard Framework http://www.goldstandardsframework.nhs.uk/ Liverpool Care Pathway for the Dying Patient. NICE (2004) CSG. Improving supportive and palliative care for adults with cancer

DN team leader workshops

Three workshops were held in March 2009 (one for each of the three clinical areas) and attended by volunteers recruited from District Nursing Strategy Group. Workshop attendees were asked to consider the following questions in relation to each indicator:

1. Would this quality indicator lead to improved patient health outcomes?
2. Would this indicator lead to improved patient satisfaction?
3. Does this indicator reflect good quality nursing care?
4. Is the indicator something within a nurse's influence?
5. Is the indicator measurable? Are data already available? How could it be recorded? How much additional time would recording take?
6. Do you think there are any inequalities for patients in relation to wound/diabetes/end of life care and is there anything you do to reduce these?

Indicators that were not within the influence of district nurses (e.g. equipment), went against current PCT policy (e.g. advanced preparation of insulin), accounted for only a very small amount 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, any indicators which district nurses felt could simply not be measured were also eliminated.

District nurses from the Strategy Group were asked at the end of each workshop whether there were any important areas that had not been covered by the indicators presented and no major gaps were identified. As a result of these workshops, 42 indicators were eliminated (and two were reclassified as belonging to the organisational domain).

Gathering views

The next stage involved gathering the views of district nurses, service users, senior managers from Bristol Community Health and commissioners and on the remaining potential indicators - organisational (2 indicators); wound care (10 indicators); diabetes care (8 indicators); and end of life care (8 indicators).

To get the views from a broad range of frontline district nurses, we asked district nursing team leaders (n=45) to respond to a survey, based on the latest shortlist of potential process indicators in April 2009. Respondents were asked to rate each indicator on a scale of 1 to 5 (strongly disagree to strongly agree) for the following criteria:

- Likely to lead to improved health outcomes
- Likely to lead to improved patient satisfaction
- Reflects good quality nursing care
- Within the scope of influence of district nursing
- Variability of practice amongst district nurses

Responders were also able to enter free text comments for each indicator. The survey had a response rate of 76% (34 DN team leaders). A summary of the results of the survey can be found in Appendix 4.

To get the views of service users, the District Nurse Strategy Group were asked to identify three patients or carers for each of the three clinical fields: wound care, diabetes or end of life care (n=9) and to ask their permission for their details to be passed to a researcher. We then telephoned these service users. It was clear from the first three interviews with this small group of frail, mainly older people, that the terminology associated with the clinical indicators was inaccessible. On reflection, and in discussion with the project team, we decided asking participants their views of the clinical quality indicators was unrealistic. These were overly technical, especially in terms of the diabetes and wound care indicators, though more accessible in the case of end of life indicators. For the subsequent three interviews, therefore, opinions about the clinical indicators were omitted from the interviews and questions about continuity, transition between services and patient education were put with varying success in obtaining valid responses.

In May 2009, to get the views of commissioners and Bristol Community Health senior managers, we presented the shortlist of process indicators in meetings and asked whether each potential process indicator was an important, useful and strong measure of quality and if we should continue to develop it. We also had telephone conversations and e-mail contact with commissioners and

clinical specialists in the fields of diabetes and wound care to get their perspectives. These discussions shaped the project further in that Bristol Community Health senior managers raised the questions of how and who should set targets and commissioners commented that although the process indicators were a start, they wanted outcome indicators to help measure the success of a service in meeting its quality agenda. To see the matrix we used for these meetings, please see Appendix 8.

Finding outcome indicators

To identify potential outcome indicators, we looked at the most commonly used outcome measures in major studies of wound care, end of life and diabetes and also consulted with academic district nurses. A long list of 20 potential outcome indicators (six wound care, eight diabetes and six end of life) was fed back to a sub-group of the District Nurse Strategy Group, lead commissioners and specialists in the conditions (i.e. diabetes, tissue viability and end of life care) in June 2009. Following these consultations, a short list of ten outcome indicators remained (three wound care, four diabetes, and three end of life). We continued to look for and receive feedback about outcome indicators throughout the next few months, long into the refinement stage.

Capturing patient experience and patient derived outcomes

Throughout, as well as developing quality indicators, the project team carried out various activities related to identifying and capturing key aspects of patient experience in order to identify 'experience of service' indicators.

During the first phase of the project the PCT made their user group, the Health Interest Group, available to identify what they felt were indicators of good quality services in the community. The group already met monthly to discuss policy and research with the PCT from a user or carer perspective. Initially, it was hoped to obtain their views by running focus groups, but for logistical reasons this was not possible. Telephone interviews were therefore carried out with six users in November and December 2008, and notes were taken from these interviews and fed back to the wider project team.

Issues to do with appropriately trained staff, humanity, continuity of care, transition between services, information giving and communication were aspects of quality that users identified as being important. We asked for their views on patient derived outcome tools, whereby the service user sets his or her own goals in partnership with healthcare providers. There were mixed responses. Some thought that it was the "best idea", would enable partnership and useful for those with chronic problems. Others thought that it could be time consuming and harder for the very frail and sick. One person was somewhat cynical and thought that this could be used to shift responsibility from the professional to the patients in an attempt to save resources. Being members of a formal group, the interviewees were articulate about services and several seemed to have a professional background in nursing.

To ensure that our work on patient experience linked in with the wider work carried out in NHS Bristol, in January 2009 we met with a NHS Bristol staff member who was charged with developing a model of good quality care from the perspective of service users across the acute, primary and community care sectors. The resulting 'SPACE' model was to be introduced across all services in the primary care trust and we were asked to closely work within its parameters.

At a later stage in the project in May 2009, telephone interviews with service users were again attempted; this time with patients currently on a district nurse caseload. Nine patients were hand – picked by several district nurses to represent views of people receiving care for a wound, diabetes or end of life care and six patients were subsequently interviewed. At the time we were attempting to get patients' views on clinical process indicators, (some of which were too technical for patients to fully understand) and incorporate some questions about perceptions of transition between services and continuity of care. It was clear from the interviews with this group of frail, mainly older people that some concepts that seemed important to the health interest group were not necessarily appreciated as issues by this small group. For example, patients were asked about transition between services, and nobody said they had experienced this, though later in the interview several examples of this were given by interviewees (eg use of out of hours, referral for specialist nurse opinion, obtaining large equipment). Continuity (of care) was not a well understood concept and a tangible example had to be given to suggest what this might mean. The patients all thought they were being asked about their satisfaction with services they had received, despite a full explanation of the purpose of the interview (to understand what issues they thought important in thinking about quality of district nursing care and specifically, what they thought of the process indicators). However, they were positive about having their views sought by telephone (might ignore a survey).

Based on the findings of these two mini-interview studies and our discussions with NHS Bristol user involvement staff, we decided that the best way to capture district nursing service user views was through a survey and possibly through patient derived outcome tools.

To devise the telephone survey, we searched the literature for studies on service user specified elements of good quality homecare nursing. We found one study from which we extracted data on key elements of quality and compared them with the findings from the two service user interview studies. Our aim was to identify key elements across all three data sources. To find sample questions, we contacted the Picker Institute, who had developed a questionnaire to measure satisfaction with district nursing care used by other PCTs. In addition, Bristol Community Health was using *Dr Foster* as the basis for surveying patients about satisfaction with services, and so we identified questions from this database that also addressed the key elements.

We then constructed a table for the June 2009 advisory group meeting which detailed 15 elements of good quality care, the sources of these elements,

possible questions and the linkage with the SPACE model (see Appendix 5). We also presented information on Discovery interviews and different types of patient derived outcome tools such as MYMOP and Goal Attainment Scaling found in the literature (see Appendix 6). The advisory group decided that the most appropriate method for getting patient experience views would be a telephone survey and that there should be a maximum of 10 questions. The group was also interested in pursuing the possibility of using patient derived outcome tools, but not Discovery Interviews.

After this advisory group meeting, two members of the project team (SH and LW) narrowed down the element list. SH then devised a pilot questionnaire, which was commented on and amended by LW. A copy of this questionnaire was also sent to the public and patient involvement manager for Bristol Community Health for comments. See Appendix 7 for the resulting questionnaire that is now ready for piloting.

We were also interested in exploring the possibility of using patient derived outcome tools with district nursing patients.

From our interviews with members of the Health Interest Group and district nursing service users and carers, we learnt that many of the components of good care that were most important to users were not easily measured through indicators (e.g. kindness, respect, good transition between services). However, we did have a good understanding of the key elements to capture. To find out whether the responses from our local respondents were similar to national studies, we searched the research literature for studies on quality of care with housebound patients. We drew up a list of key components of good quality care for housebound service users based on our interviews and the literature.

We then considered ways to capture these components: qualitative interviews, focus groups, forums, surveys and Discovery Interviews. In Discovery Interviews, service users tell their story of a clinical encounter, which is recorded and transcribed. This document can then be used by staff in professional education activities, as a way of identifying clinical care improvements.

In interviews with district nurse service users, patients appeared to prefer telephone surveys. They believed that postal surveys might be ignored, but telephone interviews were acceptable, if given notice of the questions. As this group of health service users might be hard of hearing, have sight problems, loss of dexterity or some cognitive problems, we decided that it would be important to develop short and accessible questions with structured responses suitable for telephone interviews.

We then contacted the Picker Institute, a charity with the remit of measuring patient experience, and they passed on two questionnaires they had designed for district nursing services for other PCTs. We also accessed the Dr. Foster database to identify potentially appropriate questions from their dataset.

In addition to capturing patient views of the service, we also considered the value of administering patient directed outcome tools to district nurse service users. The idea behind patient derived outcome tools is that at the first visit, service users identify goals that they wish to achieve that are currently inaccessible because of their health conditions, in collaboration with their practitioners. For example, a patient derived goal could be to walk to the shops or to manage pain better. At a later visit, these goals are re-visited and progress recorded. Several patient derived outcome tools are currently in circulation, and we selected MYMOP (Measure Yourself Medical Outcome Profile) (Paterson, 1998) and Goal Attainment Scaling (Turner-Stoke, 2009), as two possible tools. As district nurses, other community service staff and service users from the Health Interest Group expressed some concern about using patient derived outcome tools with this population, this would need to be piloted. See Appendix 6 for the suggested patient derived outcome tools.

Preparation of reports

While work on capturing patient experience progressed, the remaining process measures and newly identified outcome measures were being prepared for consideration at the advisory group meeting in June. Prior to the meeting, reports were drawn up for each of the indicators with information on source of indicator (e.g. guideline, systematic review etc.) and the views of frontline staff, commissioners and Bristol Community Health senior managers. The reports were sent out to all members of the advisory group prior to the meeting and were to help the advisory group decide which indicators to retain and which to reject.

Finalising the shortlist of indicators and capturing patient experience: the June 2009 advisory group meeting

The aims of the June advisory group meetings were to finalise the shortlist of indicators and to discuss patient derived outcome tools and ways to capture patient experience.

For the indicators, prior to the meeting, attendees were asked to individually rate each of the proposed indicators as 'KEEP', 'DELETE' or 'UNSURE'. At the meeting, the advisory group discussed each indicator in turn to reach a consensus about whether they should be further developed (KEEP) or eliminated (DELETE).

Following discussion, 22 process indicators were retained (two organisational, six wound care, five diabetes and nine end of life) and ten were deleted (two organisational, five wound care, three diabetes, none end of life). Only five of ten outcome indicators were kept (one wound care, one diabetes, three end of life). The remainder were rejected due to either problems with measurement or difficulties in attributing changes in the outcome to the DN service. The voting results are in Appendix 10.

The advisory group also decided to move ahead with a telephone survey, in preference to Discovery interviews or qualitative interviews and wanted to pursue the possibility of patient derived outcome tools for district nurse service users.

Refinement Phase (July – September 2009)

In the penultimate stage of the development of the indicators, we carried out two main activities:

- Designing a district nurse service user survey
- Refinement meetings with district nurse team leaders
- Meeting with the District Nurse Strategy Group

Designing a district nurse service user survey

After the advisory group meeting in June, we designed a short ten question survey incorporating the highest priority elements of good quality nursing care for housebound patients by combining questions from the Picker Institute questionnaires and from Dr. Foster. This needs to be piloted. (Appendix 7)

Refinement meetings with district nurse team leaders

In July and August 2009, three meetings were set up with district nurse team leaders across Bristol, one for the each of the clinical conditions. The purpose of these meetings was to make any final amendments to the wording of indicators, to determine how each would be measured, to clarify any exception reporting and to identify perverse incentives or gaming. Clinical specialists for each of the three areas were invited to the relevant meeting e.g. specialist palliative care nurses came to the end of life care meeting, so that we and the district nurses had access to local guidance on 'best practice'. We asked the district nurses and the specialist nurses to bring along forms that were currently in use for these clinical conditions, so we could understand how to collect the data. In addition, we asked participants for any patient information leaflets on the clinical conditions currently in circulation. We also asked for further feedback on outcome indicators, especially diabetes outcome indicators, gave out copies of the district nurse service user survey and discussed patient derived outcome measures. At the conclusion of these meetings, we had 24 indicators in total: 18 process and 6 outcome.

Meeting with DN strategy group

In mid-September 2009, we met with the District Nurse Strategy Group for the final time to thank them, ask for clarification on some outstanding points and discuss issues around implementing the indicators. At this meeting, they pointed out that one of the end of life indicators was duplicated by an organisational indicator and so we dropped the end of life indicator. This left us with a final list of 23 indicators – 17 process and 6 outcome indicators.

Dissemination (September – October 2009)

At the conclusion of this project, we had several outputs including:

- A framework for developing quality indicators in Bristol community services.
- A set of quality indicators for the Bristol District Nursing service.
- A patient satisfaction survey directly linked to the quality indicators developed for Bristol District Nursing service.
- Two possible validated tools for capturing patient derived outcomes.

In late September 2009, the advisory group met for the final time and we decided to target dissemination to two audiences: a) academics, b) NHS professionals interested in quality, community services and/ or district nursing.

For the first audience, we will present our findings at national conferences. We will also write at least one paper for a high quality journal, such as *International Journal of Quality in Health Care* and possibly another for a nursing journal.

For the second audience, the advisory group suggested:

- presenting our findings to the Bristol Community Health Senior Management Team
- publishing in a Bristol Community Health newsletter
- contacting the *Health Service Journal*, the *Independent Nurse*, *Nursing Times* and/ or *Nursing Standard* to raise the profile of the project amongst commissioners and nurses.
- submitting the indicators to a national indicator 'bank', if one has been set up by the Department of Health

At the advisory group meeting, we also discussed the next steps of the project, which include piloting the district nursing indicators, testing the framework with other community services, piloting the district nursing patient survey and testing the patient derived outcome tools amongst district nurses and their service users. Please see section six for further details.

SECTION FIVE

Strengths and key issues

Introduction

Little work has been done previously on developing indicators for NHS community services. Because this has been a learning process, the aim of this chapter is to outline both the strengths of the project and also the key issues encountered, so that those developing quality indicators in community services can take the field further forward in the future.

Strengths

We have identified five key strengths of the project. These include:

- Involvement of the district nursing service
- Accessibility of Bristol Community Health and NHS Bristol staff
- Contact with a broad range of people
- Developing the project in an academically rigorous way
- The project team

Involvement of the district nursing service

The District Nursing service was involved at every stage of the development process. The professional lead for district nursing was particularly supportive. We attended several meetings of the District Nurse Strategy Group to discuss our work. We held a total of six workshops with district nurses to choose and refine indicators and to discuss methods of measurement. We also conducted a survey of all district nursing team leaders in Bristol (grade 6) to obtain their views on the indicators, which had a high response rate of over 70%. Further discussions with district nurses through email and telephone conversations also continued throughout the project. The vast majority of district nurses involved in the project were positive about what we were doing and their assistance at all stages was invaluable.

Accessibility of Bristol Community Health and NHS Bristol staff

From the outset, we worked with Bristol Community Health by convening focus groups with service heads, attending pan-Bristol Community Health meetings and setting up individual meetings with key Bristol Community Health staff, such as the data manager and the Director of Nursing. Specialist nurses and doctors and staff from public and patient involvement, performance management and clinical governance were particularly supportive. Both Directors of Commissioning from NHS Bristol had involvement in the project at various stages, and were keen for us to make contact with their staff to develop the project further. Consultation on these indicators has been very extensive.

Contact with a broad range of people

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. In addition, we spoke to CQUIN developers from the Department of Health and consultants who were commissioned by the Department of Health to develop preliminary national community services indicators.

Academically rigorous within the limits defined by the task

The methodology of the development process was informed by available literature on quality indicators. We also attempted, where available, to base our indicators on high quality evidence. Furthermore, we applied academic standards to the project, as it developed. So, for example, the interviews with service users were conducted in line with guidance for good quality qualitative research.

The project team

Four people made up the project team that carried out the routine work and we worked well together. Both universities based in Bristol were involved. Team members came from multi-disciplinary backgrounds including community nursing, general practice, guideline development and policy. We also had a range of research expertise including qualitative, quantitative and systematic reviewing.

KEY ISSUES

Notwithstanding the strengths of this project, we encountered several issues that challenged its development. These included:

- Defining good quality nursing care
- Defining the scope and core aims of the district nursing service, or, in other words, standardising care
- Lack of practice guidance and evidence for district nursing
- Involving service users meaningfully
- Clinical practice versus holistic care
- Data collection issues

The following sections take each of the major key issues in turn.

Defining good quality nursing care

Quality is hard to define, incorporates many dimensions, and differs depending on who is asked. Patients, providers and purchasers all have different expectations of what a service should do and the values they place on aspects of care differ. For example, very few service users explicitly linked

quality to clinical outcomes. These differences in expectations and values sometimes translated into very different evaluations of quality.

To provide a definition of good quality nursing care, a range of stakeholders were consulted including community services staff, service users and their carers and commissioners. Definitions of high quality nursing from published literature were also sought. We used the definition supplied by King's College to help guide our efforts. This identified good quality nursing as:

1. A holistic approach to physical, mental and emotional needs, patient-centred and continuous care
2. Efficiency and effectiveness combined with humanity and compassion
3. Professional, high quality evidence-based practice
4. Safe, effective and prompt nursing interventions
5. Patient empowerment, support and advocacy
6. Seamless care through effective teamwork with other professions. (Policy Plus, Issue 13, October 2008. King's College London.
www.kcl.ac.uk/schools/nursing/nuru/policy)

Defining the scope and core aims of the district nursing service – standardising care

Defining and measuring the quality of a service necessitates a clear understanding of what that service actually does. At the outset of the project, there was no service specification for the district nursing service in Bristol and we observed a need for improved clarity about the role of district nursing.

Unlike some of the other services provided by Bristol Community Health, 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. The service deals with both straightforward (e.g. uncomplicated wounds) and complex health conditions. Patients may be seen for a limited time period only or for longer term care over months or years. It is hard to capture the diverse range of activities provided by the service and to identify the core services provided.

Differences were also observed between teams in terms of staffing (numbers and skill mix), record keeping, relationships with GP practices, and in the socio-economic profile and health needs of patients seen. Some differences in practice as a result of a previous division of the service into north and south Bristol still remain. For example, several different types of forms were in use by district nurses to record changes in the clinical conditions under study; the form chosen usually depended on whether the nurse was formerly based in North or South Bristol.

Lack of practice guidance and evidence for district nursing

A central aim of the project was to develop quality indicators that represent good practice and are linked to improvements in health outcomes and patient satisfaction. To this end, we sought to identify recommendations for clinical practice from well developed evidence based clinical guidelines and rigorous

systematic reviews. Although we identified a wide range of guidelines and evidence relevant to the clinical areas chosen, the guidance was not always suitable for the district nursing staff (who are generalists as opposed to specialists) or for the patient group (i.e. elderly, housebound, often with co-morbidities or cognitive issues).

In addition, although the guidelines used were evidence based and rigorously developed, not all of the recommendations contained within the guidelines can be considered to be 'evidence based', as in many instances the guideline developers were unable to identify directly applicable clinical studies or good quality evidence. For example, in the NICE Pressure Ulcer guideline many of the recommendations were grade D (based on expert opinion or formal consensus). A lack of evidence increased the uncertainty about whether clinical activities can be expected to lead to improvements in health outcomes. However, much of the guidance used was developed by multidisciplinary teams and underwent public consultation with a wide variety of stakeholder experts. So although we do not know how strong the link is between suggested clinical activities and improved health outcomes, we do have some confidence that these represent the best available understanding of good practice.

Involving service users

We aimed to involve service users at all points during the project, specifically at advisory group meetings, while familiarising ourselves with community services early on in the project and in selecting, developing and weighing up indicators.

Although we had three service users on the advisory group who were keen to take part, we were not sure exactly how to maximise their contribution. Service users attended the first advisory group meeting and we had a further meeting with a service user who specialised in performance management. Moreover at the outset of the project, service users from the Health Interest Group at NHS Bristol gave their views on issues in community services in telephone interviews. These telephone interviews and meetings helped us identify key potential issues for service users, but as the project began to focus on district nursing we struggled with engaging these potential advisors in a way that was meaningful for them and helpful to us, as they were so different from the service users of the district nursing service.

Users of district nursing services are by definition housebound, making attendance at focus groups or stakeholder meetings nearly impossible. So, our primary method of consultation was through telephone interviews. Most district nursing patients are elderly and many have cognitive issues. Many technical aspects of the quality of care were not readily understood by service users. Moreover, one of the clinical areas identified for the development of indicators was end of life care, which is particularly sensitive for both service users and their family/carers.

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.

Developing outcome indicators

When setting out to develop quality indicators, thought needs to be given to what the indicators are for and what will be incentivised. Outcome indicators represent the ultimate goals of health care and as such might be expected to give the clearest indication of the quality of a service. However, incentivising processes, which are within the scope of practitioners, may be more likely to improve the quality of a service. Nonetheless, in addition to developing process indicators, it was our aim to develop outcome indicators for each of the three clinical areas (wound care, diabetes, end of life). This proved difficult.

Many of the potential outcomes indicators that were considered would occur in the long term, making it difficult to attribute them to care received and also unsuitable for making inferences about recent care provided by the service (for example complications arising from diabetes). A range of factors other than care provided by a service can be expected to influence health outcomes, such as the willingness of patients to follow nursing advice, and therefore district nurses felt that they could not be held entirely accountable for some of the outcomes suggested (e.g. the length of time a wound takes to heal). Other outcome indicators that were considered were based on events that occurred infrequently, meaning that they would not yield enough data to be clinically meaningful or permit any useful statistical comparison (e.g. unplanned admission to hospital for hypo- or hyperglycaemia). Finally, differences between district nurse teams in terms of the case mix of patients made selecting outcome indicators that could be 'bench marked' between teams or localities difficult and would require complex statistical analysis to interpret results.

Despite these difficulties, we were able to identify outcome indicators for two of the three conditions (wound and end of life care) that were largely acceptable to district nurses, commissioners and service users. For diabetes, where we were unable to find outcome indicators, we looked at systematic reviews and randomised controlled trials. In addition, we had several discussions with two specialist diabetic nurses and a GP with a PCT wide remit for diabetes. All of the potential diabetes outcome indicators put forward were dropped, usually because their achievement was largely dependent on patients' willingness to follow nursing advice or because the co-morbidities amongst elderly housebound patients frustrate attempts to set sensible standards that can be meaningfully applied to all district nursing diabetic patients.

Clinical practice versus holistic care

One consequence of using clinical practice guidelines and systematic reviews of evidence to develop quality indicators is that the set of indicators produced have a predominantly clinical focus. However, service providers and users consulted during the project indicated that they saw good quality care as

being about much more than improving clinical outcomes. Good quality care was seen as incorporating clinical effectiveness, but embedded in a more holistic approach that is patient-centred and geared towards meeting the patient's physical, mental and emotional needs. Activities that contribute to a holistic approach to care proved difficult to define and difficult or impossible to measure. It is possible that an overly clinical approach to quality and an emphasis on what is more easily measured may miss out other important aspects of district nursing care that are valued by patients and seen as a vital part of their role by district nurses themselves (e.g. kindness and compassion). Moreover, there is the danger that measurable actions will be perceived as 'counting' more than unmeasurable ones and this may have a knock-on effect on the nature of care provided.

Data collection issues

Given the complexity of the concept of 'good quality nursing care', it is not surprising that the measurement of quality is also a complex activity. Actions that are easiest to assess are those that are routinely documented. However, not everything is documented and there are some important aspects of care that are simply not feasible to measure (for example, opportunistic patient education). Selection of measures can end up being determined by the availability of data rather than the importance of the measure.

Nonetheless, district nurses do undertake an enormous amount of record keeping, such as specialised forms for distinct clinical conditions, care plans, initial assessment forms and on-going contact forms. Much of the information required for indicator measurement is recorded in patients' notes which are kept in their homes. Collecting this data is likely to be time consuming and may also feel intrusive to patients. Furthermore, the majority of information is not kept electronically. Although the RIO electronic system is due to go live in the next six months for Bristol Community Health, the district nursing service is not amongst the first wave of services selected for RIO implementation.

Differences were observed between teams in terms of methods of recording data. Some teams have good access to GP electronic records systems (e.g. EMIS) whereas others have no access and maintain their records in their own electronic systems or in paper records filed in district nursing offices. These differences make outlining data collection processes complicated and difficult to standardise, which may have consequences for the reliability of the indicators.

Finally, although district nurses have carried out audits, there is virtually no baseline data available to set any meaningful targets.

SECTION SIX

Next steps

Introduction

This section outlines the next steps in taking forward the work on quality indicators in community services, particularly district nursing. These include:

- Testing the framework for developing quality indicators in community services
- Piloting the district nursing quality indicators
- Implementing the district nurse quality indicators
- Piloting the patient experience aspects
- Future research

Testing the framework for developing quality indicators in community services

One of the main products from this project has been the development of a framework for developing quality indicators in community services. This has been developed in conjunction with the Bristol Community Health district nursing service. However, we do not know if this framework would work in developing indicators for other community services – whether in Bristol or more widely.

One possible way of testing this would be to ask NHS Bristol commissioners with responsibilities for other community services to develop guidelines for their respective services using the framework provided and the accompanying guidelines (section 2). This initiative could be set up within an educational format, in that members of the project team could have regular meetings or workshops with these commissioners to help them work through the framework and provide guidance and support. We could record difficulties and challenges met by these commissioners, as they work through the process, and use that information to subsequently modify and refine the framework.

Piloting district nursing indicators

A further stream of work centres on piloting the indicators that have been developed using this framework. In the August refinement meetings with district nurses, several nurses suggested that these indicators be piloted before they go live.

Piloting provides an opportunity to collect baseline data about how the service is currently performing, which will be useful in terms of setting targets for the eventual indicators. It will also give some idea of the usefulness of the indicators in terms of driving quality. For example, if staff or teams are already achieving 100% on a particular indicator then there is no room for quality

improvement in this area and it may be a better use of resources to replace the indicator with an alternative. Piloting allows for better understanding of the potential data collection burden on staff and whether the data collected are useful. The results of the activity will be used to judge the quality of the service, are linked to remuneration and may have implications for future organisation and practice. Consequently, it is very important to get the indicators right.

The aims of piloting of the district nurse indicators would be:

- To gather baseline data to help inform any metrics that may be developed
- To determine the feasibility of collecting data from pre-identified sources
- To further refine the indicator set e.g. re-word unclear or misleadingly phrased indicators, identify duplication, eliminate any indicators that do not provide useful information

Other issues that piloting can address include:

- feasibility
- quality of recording
- reliability
- sensitivity to change
- validity
- acceptability

Feasibility of data collection

As part of the indicator development process, consideration was given to how the indicators would be measured, namely what data would be needed and where would these data come from. However, this still needs to be tested in practice. The feasibility of the data collection process needs to be considered before full scale implementation of the indicators takes place.

Questions to consider:

- Is it possible to obtain the data required from the sources described such as patient care records kept in patients' homes, files kept in district nursing offices and GP electronic systems?
- Any there other ways of obtaining data?
- Would any changes be required in terms of data capture? If so, how much extra work, who will implement these changes to ensure that the necessary data is captured?
- If there is more than one way of capturing the same piece of information (e.g. from patient's records, or by asking patient) can try out both to see which is best?
- Are any data collected that were not necessary?
- Did the data collection process have impact of staff and service users?
- Are there any unintended impacts from data collection procedures?
- Were the data collection forms adequate for data capture, clear and understandable to those collecting the data? Do any changes to be made to increase efficiency or clarity?

- How much missing data are there? Which items does there tend to be missing data?
- Is it possible to capture all the data necessary for the indicators electronically, and if so, what implications would that have?

Quality of recording

The use of quality indicators relies heavily on accurate recording of care provided. Studies have shown that even important clinical data may be poorly recorded (Goudswaard 2003). Activities themselves could be carried out but not recorded, giving the impression that care was not provided and quality criteria not met. Or, other important information that determines care could be missed out (for example, a patient refusing a treatment), giving a misleading impression of what should have been done. Furthermore, the activity may have been carried out, but recorded by different individuals/ teams on different forms. Staff working in the service for which data is being collected should be fully aware of what data is being collected and how it will be used to determine quality, in order to ensure that all necessary information is recorded in the same place.

Reliability

Reliability refers to the “repeatability” or consistency of a measure. In other words, if the measurement was repeated (either by a different person or by the same person at a different point in time) would it give the same result?

Sensitivity to change

Sensitivity to change refers to the extent to which variations in care would actually lead to variations in the indicator. A good indicator should be able to detect meaningful change when it has occurred and remain stable when it has not.

Validity

Many of the indicators developed are based on evidence. Service staff were consulted during the development process (for example, during a survey of district nursing team leaders) to ask where they felt that the indicators represented good quality nursing care. Service users and commissioners were also consulted to obtain their views. To some extent, validity has therefore already been addressed. It is recommended that staff are further consulted during and after the pilot face to determine whether they feel that the indicators, as measured, do represent high quality care and whether they feel that the indicators as a whole represent high quality care for each of the clinical areas (wound care, diabetes, and end of life).

Acceptability

Acceptability of the indicators has already, to some extent, been addressed during the development stage through regular consultation with the service and with users and commissioners. Acceptability of the data collection process should be considered during the pilot. Questions to consider include: Were the data easy to collect? Was there an additional recording burden on service staff and, if so, was this acceptable? Was the data collection process intrusive for either service staff or users (some indicators, for example, are based on information collected from patients' records held in their homes)?

Implementing indicators

Once the district nurse quality indicators have been piloted, implementation can take place. Although the following points may be well known, we wanted to raise several issues that need to be taken into account when considering the implementation of indicators. These include:

- limitations of indicators
- engaging the practitioners
- optimising data collection
- who should collect the data
- target setting
- time periods
- computer systems

Limitations of indicators

A well designed set of indicators should measure the quality of an organisation or service, but a lack of high quality research evidence, difficulties in standardising care and limits to what can be measured mean that indicators are not perfect.

Engaging practitioners

Working with practitioners who are responsible for the clinical care helps to ensure a sense of ownership, and they may therefore be more inclined to collect data for indicator measurement.

Optimising data collection

An effective data collection strategy, including piloted data collection forms with adequate instructions, needs to be in place before starting, in order to ensure that the data collected are accurate and reliable. This should be addressed in the piloting phase.

Who should collect the data?

Possibilities of those who collect the data could include: 1) the practitioners themselves, 2) commissioners, 3) Bristol Community Health clinical governance professionals. If practitioners collect the data themselves, spot audit checks by outside professionals could be instigated to ensure data quality and accuracy.

Time period

The time period over which the data should be collected needs to be clearly defined before data collection takes place and be short enough to be manageable but long enough to get a big enough sample of patients.

Target setting

A target defines the level of performance that is considered acceptable for an indicator. Targets should be ambitious enough to drive quality but need to feel achievable and ideally are arrived at in consultation with the practitioners after baseline data are collected.

Computer systems

Electronic systems permit automatic data capture of some information required for indicator measurement, thus saving time and reducing the likelihood of errors in transcription, and also leads to greater standardisation.

Piloting the patient experience aspects of the project

There are two pieces of work associated with the patient experience: the patient derived outcome tools and the district nursing survey.

Patient derived outcome tools

Little research has been done comparing the advantages and disadvantages of different types of patient derived outcome tools. For this project, we identified two patient derived outcome tools that may be used with district nursing patients: MYMOP and GAS. However, in the focus groups and meetings with heads of Bristol Community Health services, some concern was expressed about the appropriateness and feasibility of using these tools with district nursing patients, who tend to be elderly and housebound with multiple co-morbidities. So, this would need to be piloted.

The aims of piloting of the patient derived outcome tools would be:

- To learn if service users are happy to complete patient derived outcome questionnaires
- To gather health professionals' views on the usefulness and impact of using patient derived outcome tools
- To compare the acceptability, usefulness and feasibility of using MYMOP compared with Goal Attainment Scaling.

This pilot could be led either by members of the project team or possibly by the Patient and Public Involvement Team.

District nurse patient survey

As part of the project, we have drafted a short telephone questionnaire. This needs to be piloted to ensure that useful data are captured and that district nursing patients are happy to give their views via telephone.

The aims of piloting the district nurse patient survey would be:

- To find out if the questions are acceptable and useful
- To find out if telephone surveys are appropriate and acceptable to this service user population.

This pilot could be led either by members of the project team or possibly by the Patient and Public Involvement Team.

Future research

Meeting the challenge of this project was partly frustrated by the lack of research evidence to support the indicators. In general, there is much less research into nursing, whether quantitative or qualitative. Of the studies that were carried out, most were set within acute hospitals patients, rather than within the community. In randomised controlled trials, elderly patients with co-morbidities were often excluded. Even qualitative studies with the type of patients who make up the majority of the district nursing caseload (housebound elderly patients with co-morbidities) were scarce. So there was little research evidence to underpin the indicators.

For example, we used the NICE guidelines for type I and II diabetes to identify initial indicators for diabetes care. The guidelines recommend that a programme of structured education be available, based on principles of adult education and delivered by a multidisciplinary team. Such programmes are delivered in the community and require attendance by diabetics. This is not feasible for patients cared for by the district nursing service as they are housebound. The content of such programmes may also be unsuitable for elderly diabetics with cognitive problems. We therefore conducted a literature search to identify reviews or studies of education for elderly diabetic patients but were not able to identify any.

Future research questions

To address this gap, studies on community nursing with elderly, housebound patients are urgently needed. While carrying out this study, we identified a number of research questions. These include:

- What factors contribute to variation in the delivery of district nursing services?
- How do newly developed services, such as intermediate care and community matrons, impact on district nursing workloads?

- How do service users and primary care professionals navigate the range of nursing services?
- What factors impede delivery of standardised care pathways to end of life patients?
- How many terminally ill patients die within 48 hours of being admitted to hospital and how could these admissions be prevented?
- What does the profile of the district nursing service look like e.g. age, educational attainment, current roles and aspirations, job satisfaction?
- What are the most important aspects of quality of care to district nurse patients and where do they perceive the gaps?
- What are acceptable, measurable and feasible outcome measures for community services, where the emphasis is more on care than cure?
- What differences do the implementation of quality indicators make to quality of care? In particular, what impact do community service health professionals and service users note?
- What impact do quality indicators have on the professionalisation of community service staff?
- Can quality indicators have an impact on inequalities, standardisation of care and efficiency savings?
- Do the implementation of process indicators lead to improvements in outcomes for community services?

These and other questions could be the focus of either local or national research.

SECTION SEVEN

Conclusion

This project has encountered several challenges, but we have found it possible to design a framework for developing indicators in community services which has subsequently been tried out for the district nursing service. The next step is to apply the framework in other community services and to pilot the district nursing indicators, the patient derived outcome tools and the district nursing survey.

APPENDICES

Appendix 1 Project brief and project protocol

Project brief

Expressions of Interest are invited from organisations or individuals to work with the PCT Commissioning Directorate on the development of a Quality and Outcomes Framework for the Primary Care Trust's Provider Service Unit. The product will reflect the domains of clinical outcomes, patient experience and safety and cover an agreed scope of clinical services and other organisational domains.

An outline specification can be obtained from Sue Firks at Sue.firks@bristolpct.nhs.uk . Initial expressions of interest should be submitted by 12 noon on

Bristol PCT provides services to an urban population of 410,000. The City is characterised by areas of significant affluence and deprivation. The PCT is both a commissioner and service provider and is developing this relationship through an "arms length" approach to it's provider unit. The unit currently provides a wide range of typical community services including health visiting, district nursing and intermediate care services. The unit also provides a range of more specialist services such as a prison health service, primary care psychology service and a heart failure service. The revenue of the unit is c£33m and c1200 staff are employed across the range of services.

Building upon the success of the GMS Quality and Outcomes framework, the commissioning directorate wishes to develop a comparable framework and incentive scheme to promote the provision of safe, high quality and well organised community services.

It is envisaged that the domains included within the framework will be broad and capture both clinical service provision and organisational aspects of care. The clinical domains are expected to capture clinical outcomes, patient experience and to encompass the patient safety domain. It is envisaged initially, that indicators will be developed for around 5 or so clinical domains and a similar number relating to organisation aspects of service delivery.

The areas in which the QoF is established should reflect areas where impact is likely to lead to greatest benefit i.e. they will be high volume service areas (with respect to number of patients seen, it should involve those services where the evidence base is sufficiently established to enable the development of indicators where achievement will lead to improved patient outcomes and the areas chosen should reflect the PCT strategic objective to improve the health of the worst off in the city.

Information systems to support capture and measurement of this information are under developed and contributing to the development of community service information system data sets will be a key output from this work. To enable the framework to be introduced as soon as complete, initial measures will need to reflect the ability of the commissioner and provider to monitor performance and may be tested through sampling and audit rather than population measures.

Project protocol

Quality indicators for community services Bristol PCT

Services provided in the community are guided by a range of nationally agreed policies and standards, such as National Service Frameworks which set quality standards for a range of health conditions, and the Gold Standards Framework which provides standards for palliative care. Skill and competencies of NHS staff working in the community are assured by recognised educational standards and qualifications. However, for commissioning purposes, where there may be costs savings or opportunities for service improvement in a context of competing providers, quality indicators would be a way in which differences could be measured. In order to generate valid indicators, it is necessary to understand what is valued by users (both professional groups and patients), what constitutes 'high quality care' and how that can be measured. Other issues for quality indicators in community services are:

- ❖ whether the indicators are 'aspirational', focusing on what ideal performance could look like, or are based on what can be practically measured at the moment
- ❖ whether the indicators are summative, where success is defined as all items are achieved in full or formative, where success is defined as progress has been made.
- ❖ whose perspective takes priority in developing the indicators e.g. patients, staff or commissioners

In discussing an earlier draft of this proposal, the client (Deborah Lee, Director of Commissioning for Bristol PCT) indicated that the motivation behind this work is to help staff in community services identify how they contribute to health improvement and increase their ability to measure and assess those contributions. She would like to clarify staff priorities (e.g. when you are short on time, what's the one activity you keep on doing?) and help direct their practice (e.g. what is your maximum contribution?). She is interested in knowing how community service staff would measure the success of their service in terms of 1) clinical domains, 2) safety, 3) patients (e.g. what would they say to sing your praises?). To that end, she would like 'aspirational' indicators to be developed. Although she is aware that information systems may not exist to measure the newly developed indicators, one of the aims of this work includes identifying gaps in data collection.

Because the territory of quality indicators is relatively unknown, the client is less concerned with the production and implementation of a fixed number of indicators and more interested in developing a preliminary framework for devising quality indicators in community services. Thus, we have developed an exploratory study.

Aim

To develop a framework to generate quality indicators for clinical and organisational domains of community services, which is populated by indicators where possible.

Plan

This project would have seven stages, some of which would run concurrently.

Step 1 – Familiarisation with community services (Month 1)

A first step would be for the project team to increase their understanding of community services. This would come through discussions with key Provider Unit staff and PCT commissioners (including quality and performance managers), visiting community services, exploring information systems and learning about current guidelines, protocols and frameworks in use. To gather this information, we will use a range of qualitative research methods including interviews, focus groups and non-participant observation.

Step 2 – Identify criteria for domain selection (Months 1-2)

In parallel, criteria for domain selection will be identified. Currently, they include:

- ❖ high volume services (e.g. large numbers of patients seen)
- ❖ improve the health of the worst off in the city
- ❖ greatest potential for quality improvement in community service performance

Step 3 – Identify criteria for indicator selection (Months 1-2)

Alongside this process, criteria for potential indicators will be identified. Currently, they include:

- ❖ evidence of clinical and cost effectiveness
- ❖ best chance of impact in terms of improved patient outcomes
- ❖ within the scope of influence of community service staff
- ❖ feasible and acceptable
- ❖ measurable and quantifiable

Another potential criterion is availability of baseline data. However, because we are developing ‘aspirational’ indicators, the lack of baseline data will not exclude an indicator from being developed.

Step 4 – Identify potential domains and indicators (Months 2-6)

Once the criteria are established, the next step would be to identify potential domains and indicators. These may be pre-existing or local derived.

Pre-existing indicators may come from international or national sources. International sources include the National Care Quality Association (USA). They have developed clinical indicators for family practice, which may cover some community service areas. The Australian and New Zealand governments have also developed some organisational indicators that could be applicable. National sources include NICE commissioning guidelines and other guidelines, National Service Frameworks and the Gold Standards Framework for palliative care. The North West Strategic Health Authority, which was in the process of developing community service indicators, may also have developed some useful indicators. When we find international or national quality indicators that might be adaptable to the Bristol context, their developers will be contacted to learn more about how these indicators were generated and ask for

information on others who may be working in this field. In addition to these sources, other PCTs may also have developed quality indicators for community services that could be adapted. To access this information and increase the number of potential ‘off the peg’ indicators, we could survey all PCTs in England via questionnaires or telephone surveys.

Potential domains and indicators can also be locally derived from stakeholders in Bristol. These stakeholders may include:

- ❖ Senior provider unit staff
- ❖ Community service heads
- ❖ Community nursing team leaders
- ❖ PCT commissioners with community service commissioning briefs
- ❖ PCT Quality and Performance managers
- ❖ Patients (e.g. through patient surveys)
- ❖ Potential private and voluntary sector providers
- ❖ Practice based commissioners
- ❖ Primary health care teams

Selected stakeholders would be asked to identify the top one or two changes that could be made in the areas of clinical practice, patient experience and safety that if implemented would transform care in community services. Methods used to elicit this information could include structured interviews, questionnaires and/or focus groups.

Once these data are collected, a small group composed of members of the research team, the client and two or three others would meet to review the ideas generated and identify promising avenues of inquiry.

Step 5 – Assess potential indicators against indicator criteria and develop promising indicators (Months 3-9)

All potential indicators, whether pre-existing or locally derived, will need to be tested against the criteria detailed in Step 3. In this way, we will exclude potential indicators that do not meet these criteria and identify more viable indicators for further development.

To assess potential indicators against the criterion of ‘evidence of clinical and cost effectiveness’, we will search the medical and health economics literature for current clinical and cost outcome data.

To assess potential indicators against the criterion of ‘best chance of impact in terms of improved patient outcomes’, we will take into account the results from our literature search.

Assessment of the two criteria of ‘within the scope of influence of community service staff’ and ‘feasible and acceptable’ are detailed in Step 6.

To determine if baseline data are available for potential indicators, both pre-existing and locally derived, we will identify data that can be currently extracted from community service information systems, extract these data and give some assessment of their quality.

In developing the indicators, the wording is crucial. In particular, clear definitions of success need to be agreed. According to the team in Manchester, this step is most time consuming.

Step 6 – Test potential indicators (Month 10)

At this point, potential indicators will be tested for feasibility, acceptability, reliability, sensitivity to change and validity. In testing potential indicators in these areas, the criteria of ‘within the scope of influence of community service staff’ and ‘feasible and acceptable’ will be addressed.

To do this, we will ask a reference group of stakeholders (identified in Step 4) to comment on the indicators developed thus far. This may be through a consensus or nominal group process. We may do this electronically or through face to face meetings.

Step 7 – Disseminate

As developing quality indicators for community services is relatively new, disseminating the results of this study through publication of papers in high impact journals will be important. We also plan to present findings to in at least two national or international conferences. Other avenues of dissemination could also be explored, in consultation with the client.

Outputs

This is an exploratory study in which we would construct a framework for identifying, developing and assessing quality indicators for community services that would be populated by a range of relevant indicators. In particular, we will:

- 1) Derive sets of quality indicators for clinical and organisational domains developed from local stakeholders, where possible.
- 2) Identify and adapt, where possible, sets of additional pre-existing clinical and organisational indicators
- 3) Assess the availability of data and information system improvements needed for the capture and measurement of the indicators developed
- 4) Generate greater knowledge of the challenges of developing community service indicators and a framework to develop further quality indicators in community services in the future.

Roles and tasks

Lesley Wye

- ❖ Point of contact with client
- ❖ Manage overall project including the budget and staff
- ❖ Contribute to the design of the project and take the lead in drafting proposals
- ❖ Become familiar with community services (Step 1)
- ❖ Contribute to identification of criteria for domain and indicator selection (Steps 2 & 3)
- ❖ Undertake interviews and focus groups (Step 4)
- ❖ Contribute to the assessment of potential indicators against criteria (Step 5)
- ❖ Convene and run reference group (Step 6)
- ❖ Take the lead in writing any reports or publications (Step 7)

Susan Horrocks

- ❖ Contribute to the design of the project
- ❖ Become familiar with community services (Step 1)

- ❖ Contribute to identification of criteria for domain and indicator selection (Steps 2 & 3)
- ❖ Undertake interviews and focus groups (Step 4)
- ❖ Contribute to the assessment of potential indicators against criteria (Step 5)
- ❖ Comment on draft reports and publications (Step 7)

Literature reviewer

- ❖ Search international and national sources for potential indicators (Step 4)
- ❖ Review the clinical and health economics literature (Step 5)
- ❖ Contribute to the testing of indicators (Step 6)
- ❖ Comment on draft reports or publications (Step 7)

Data extractor (may be the same person as literature reviewer)

- ❖ Become familiar with community services, especially information systems (Step 1)
- ❖ Contribute to identification of criteria for domain and indicator selection (Steps 2&3)
- ❖ Identify and extract any baseline data and give an assessment of their quality (Step 5)
- ❖ Contribute to the testing of indicators (Step 6)
- ❖ Comment on draft reports or publications (Step 7)

Chris Salisbury and Debbie Sharp

- ❖ Contribute to the design of the project
- ❖ Contribute to identification of criteria for domain and indicator selection (Steps 2 & 3)
- ❖ Contribute to the assessment of potential indicators against criteria (Step 5)
- ❖ Contribute to the testing of indicators (Step 6)
- ❖ Comment on draft reports or publications (Step 7)

Helen Lester and Stephen Campbell

- ❖ Comment on the design of the project
- ❖ Give advice, contacts and information as able

Resources required from PCT/ Provider Unit

- ❖ Six weekly feedback sessions (written or verbal) with the Director of Commissioning to inform her of progress and check that she is happy with the direction the project is taking.
- ❖ Access to key staff at the PCT, the provider unit and within community services
- ❖ Access to information systems within community services and possibly within the PCT

Project time scale

12 months from July 2008 – June 2009

Co-applicants

Lesley Wye (LW), Research Fellow, University of Bristol

Chris Salisbury (CS), Professor, University of Bristol

Debbie Sharp (DS), Professor, University of Bristol

Susan Horrocks (SH), Senior Lecturer, University of the West of England

Advisory group

Helen Lester, Professor, University of Manchester

Stephen Campbell, Senior Research Fellow, University of Manchester

Appendix 2 Indicator reports

ORGANISATIONAL INDICATORS

OG1: Each DN team should be able to produce on request a register of all patients currently on the caseload and the main reasons for their involvement.

Evidence of a benefit:
This indicator is analogous to the General Practice Quality and Outcomes Framework, which requires GP practices to be able to produce registers of specific groups of patients, based on disease or clinical area. Whilst a register in itself does not mean that a patient receives a better standard of care, it represents good organisation and enables team leaders and members to identify patient needs and plan care appropriately.
Professional perspectives:
81% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. Comments from individual nurses were that this indicator should be retained, but they queried whether this was really a quality marker. A sub-group of the DN strategy group thought this was a poor indicator and should be deleted. However, in a later meeting, they stated that this indicator would be improved if it included “main reasons and frequency of visits”
Perceptions of current practice:
52% of DN team leaders surveyed agreed or strongly agreed that there was variability in the ability of district nurses to produce a register of all patients, putting this indicator in the second quartile.
Fits in with PCT and national priorities:
A NHS Bristol commissioner thought this was an important indicator, as it was a precursor to having a systematic approach.
Views of BCH management team:
A Bristol Community Health manager wanted to keep this indicator.

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

Evidence of a benefit:
This indicator was originally taken from the NICE guideline on Pressure Ulcers (2005) and related to the initial assessment of patients who have been diagnosed with a pressure ulcer. DN team leaders indicated that a holistic assessment is an important aspect of care for all patients on their caseload; therefore the indicator was expanded to reflect this.
Professional perspectives:
97% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. A sub-group of the DN strategy group thought this was a strong, very good indicator and wanted to keep it. But they queried why three weeks.
Perceptions of current practice:
70% of DN team leaders surveyed agreed or strongly agreed that there was variability in carrying out holistic assessments, putting this indicator in the first quartile

Fits in with PCT and national priorities:
A NHS Bristol manager thought this indicator was important, as a precursor to a systematic approach.
Views of BCH management team:
A Bristol Community Health manager wanted to retain this indicator, but thought that 3 weeks was too long.

OG3 A member of the district nursing team has received recent (within the last two years) training in the management of diabetes.

Evidence of a benefit:
This process indicator is not based on an evidence review.
Professional perspectives:
97% of DN team leaders surveyed agreed that this indicator represents good quality nursing care. Ninety four percent of DN team leaders surveyed agreed that this was likely to improve the health of their patients and 90% thought that it was likely to lead to greater patient satisfaction. A sub-group of the DN strategy group thought this was an important, but not a strong or useful measure of quality and recommended "maybe keep". They commented, "This cohort of patients will be visited by all members of the team, specific trained nurses may be away. A stronger indicator [would be] All district nurse team members will have had specific diabetes training. This has resource implications."
Perceptions of current practice:
Fifty-six percent agreed or strongly agreed that there was variation in training in diabetes amongst their colleagues, putting this indicator in the top quartile (range across all indicators 32% - 80%).
Fits in with PCT and national priorities:
A senior commissioner thought this was a useful indicator. She stated that there needed to be clear definitions of the expectations of clinical skills of DNs.
Views of BCH management team:
A BCH senior manager stated that training competencies need to be defined and identified as 'basic' and 'additional' by senior DNs. She suggested that all newly qualified DNs should have training in blood glucose monitoring, giving insulin and identifying changes in conditions (hypo and hyperglycaemia). Additional training could be available biannually and this frequency needs to be set. She recommended "keep" this indicator.
Comments:
A specialist diabetes GP stated that training was very important. A specialist diabetes nurse queried whether the indicator should read recent training or updated training. Basic training for a district nurse would be the Diabetes Foundation programme, which is for anyone not managing patients but involved in diabetes care. This consists of 2 whole days. For those seeing diabetic patients regularly, then the diploma course for 6 months distance learning would be appropriate. Her ideal would be for all district nurses to complete the Diabetes Foundation course and one member of each team to have done the diploma. She would prefer that recent be defined as "within the last 12 months". This indicator could also include something about the recently launched integrated care pathway for diabetes. Suggestion to clarify the wording to 'post-registration' training.

OG 4: A member of the district nursing team has received recent training in end of life care.

Evidence of a benefit:
This process indicator was modified from the Gold Standards Framework. The GSF was developed from a non-systematic overview of literature on palliative care in primary care, which included varying grades of evidence (systematic reviews, trials, surveys and expert opinion based on experience). The overview includes a section on “symptom control and education” which concludes that “ <i>symptom control, particularly pain management in the community can be difficult and poorly achieved and that better assessment, use of guidelines and co-working with specialist palliative care can improve things. Education must be targeted and should include care of non-malignant conditions</i> ” (Thomas, 2003, p.8).
Professional perspectives:
100% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. A sub-group of the DN strategy group stated that this was an important indicator and wanted to “keep” it. They stated, “Training is a module at St. Peters – again resource implications. Specified trained nurse may be away. A stronger indicator would be: All DN team members will have had specific end of life care training. This has resource implications.”
Perceptions of current practice:
45% of the DN team leaders surveyed agreed or strongly agreed that there is variation in end of life care training, putting this indicator in the 2 nd quartile (range of all indicators 32% - 80%).
Fits in with PCT and national priorities:
A NHS Bristol manager commented that it is necessary to identify the core clinical skills expected from a nurse and ways to know if they have them. Another NHS Bristol manager thought the implementation of this indicator would be “absolutely brilliant”, although there are questions around who would provide and pay for this training. He thought that improved training would make a huge difference.
Views of BCH management team:
A senior BCH manager agreed that this is an important indicator and that baseline competencies and frequency of training need to be agreed.

WOUND CARE PROCESS INDICATORS

WC 2: All patients with pressure ulcers should have a documented initial or ongoing pressure ulcer assessment within the last month. Pressure Ulcer grade should be assessed using the EPUAP classification system.

Evidence of a benefit:
This indicator is based on a recommendation from the NICE guideline on Pressure Ulcers (NICE 2005). NICE guidelines are based on systematic reviews of the evidence and/or expert consensus and ratified through public consultation with relevant stakeholder groups. The guideline identified limited evidence to guide the choice of pressure ulcer assessment tool. The recommendation to use the EPUAP system was based on the expert consensus of the guideline development group. We carried out a more recent search and identified one systematic review of the inter-rater reliability of pressure ulcer classification systems (Kottner 2009). Nine studies investigated the inter-rater reliability of the EPUAP system. The degree of Inter-rater reliability for the EPUAP classification ranged from fair to almost perfect.
Professional perspectives:
97% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. Some nurses said they use the Stirling assessment. A sub-group of the DN strategy group though this was a “very good, strong” indicator. They suggested initial assessment at the first visit and then reassessment as clinically determined, which could be daily.
Perceptions of current practice:
80% of DN team leaders surveyed agreed or strongly agreed that there was variability in the documentation of pressure ulcers, putting this indicator in the first quartile.
Fits in with PCT and national priorities:
A NHS Bristol commissioner agreed that this would be a useful indicator .
Views of BCH management team:
A senior BCH manager agreed that this would be a useful indicator.
Comments:
The tissue viability nurses commented that Bristol Community Health currently uses the Waterlow pressure ulcer risk assessment (which includes a classification of ulcer grade, based on EPUAP). A tissue viability nurse thought this indicator should be expanded to read: All identified risks should have actions documented with steps identified to reduce the identified risk. She thought that every patient should also have a repositioning plan. The Waterlow documentation that has been adapted for Bristol Community Health as room on it to document actions against the risks and to describe the 24 hour positioning regime. Further clarification is needed.

WC 4: All preventable* pressure ulcers graded 2 and above should be documented as a local clinical incident

* 'preventable' added after the DN team leader survey.

Evidence of a benefit:
This indicator is modified from a recommendation from the NICE guideline on Pressure Ulcers (NICE 2005). NICE guidelines are based on systematic reviews of the evidence and/or expert consensus and ratified through public consultation with relevant stakeholder groups. The recommendation was not underpinned by an evidence review, but represents the expert consensus of the guideline development group.
Professional perspectives:
75% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. However, some cynicism was expressed that this just created "more unread paperwork". A sub-group of the DN strategy team thought this was a good indicator and should be kept.
Perceptions of current practice:
60% of DN team leaders surveyed agreed or strongly agreed that there was variability in the documentation of preventable pressure ulcers, putting this indicator in the first quartile.
Fits in with PCT and national priorities:
No NHS Bristol commissioners made any particular comments about this indicator.
Views of BCH management team:
A senior BCH manager thought that this was really important, as part of proper documentation.
Comments:
Feedback from DN team leaders suggested that this indicator applies to unanticipated/preventable ulcers only. This was confirmed by the tissue viability nurses, who suggested the change in wording.

WC 8: Dressings for pressure ulcers and venous leg ulcers* should be used in accordance with the Bristol Community Health wound management formulary.

* 'Venous leg ulcers' added after the DN survey.

Evidence of a benefit:
This indicator is an amalgamation of two previous indicators, relating to treatment for pressure ulcers and for venous leg ulcers. The original indicators were identified from the NICE guideline on Pressure ulcers (2005) and the Royal College of Nursing guideline on Venous Leg Ulcers (2006). DN team leaders advised that treatment is guided by the Bristol Community Health Wound Management Formulary, and that the original indicators were consistent with recommendations contained within the formulary. The BCH Wound Management Formulary is produced by a product review group representing District, Practice and Treatment Room Nurses and Clinical Nurse Specialists from across Bristol and was last updated in February 2009.

Professional perspectives:
Note: ratings relate to earlier indicator versions. <i>WC8: Dressings for pressure ulcers should be used in accordance with the Bristol PCT wound management formulary. 94% of DN team leaders surveyed agreed that this indicator represents good quality nursing care.</i> <i>WC 15: All patients with a diagnosed uncomplicated venous ulcer (ABPI must be greater than 0.6) should be offered graduated multi-layer high compression systems (including short stretch regimens) with adequate padding. This should be recorded in the patient's care plan or a record of refusal. 97% of DN team leaders surveyed agreed that this indicator represents good quality nursing care.</i> One DN team leader commented that the dressing choice was made by the day staff. Another stated that the wound formulary aims to control costs, but there are good products available that are not on the formulary. A sub-group of the DN strategy team wanted to keep this indicator.
Perceptions of current practice:
48% of DN team leaders surveyed agreed or strongly agreed that there was variability in the dressing of pressure ulcers, putting this indicator in the second quartile. 41% of DN team leaders surveyed agreed or strongly agreed that there was variability in the dressing of wound ulcers, putting this indicator in the third quartile.
Fits in with PCT and national priorities:
No NHS Bristol commissioners made any specific comments about this indicator.
Views of BCH management team:
A senior manager queried how this could be measured.

WC 11: All patients with a leg ulcer who have been under DN care for at least 6 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 (2006). 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; six 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 assessment (Keen 2008).
Professional perspectives:
100% of DN team leaders surveyed agreed that this indicator represents good quality nursing care. Comments from individual DN team leaders were that there were insufficient training days for Doppler (2 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 faster than 6 weeks. A sub-group of the DN strategy group wanted to keep this indicator.
Perceptions of current practice:
58% of DN team leaders surveyed 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.

WC 12: Each patient with a leg ulcer should have a formal record of ulcer size documented at first presentation and at least monthly intervals thereafter.

Evidence of a benefit:
This indicator is based on a recommendation from the RCN guideline on Venous Leg Ulcers (RCN 2006). The evidence reviewed in the guideline relates to different methods of measuring ulcer size as opposed to the clinical utility of documenting ulcer size (there was insufficient evidence to guide the choice of method of measurement). Measurement of wounds is an important component of the wound assessment process and is useful for monitoring healing rates.
Professional perspectives:
97% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. A sub-group of the DN strategy team wanted to keep this indicator.
Perceptions of current practice:
58% of DN team leaders surveyed agreed or strongly agreed that there was variability in the recording of ulcer size, putting this indicator in the first quartile.
Fits in with PCT and national priorities:
No NHS Bristol commissioner made any specific comments about this indicator.
Views of BCH management team:
A senior BCH manager wanted to keep this indicator and queried how it could be measured.

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.

Evidence of a benefit:
This indicator was modified from a recommendation from the RCN guideline on Venous Leg Ulcers (RCN 2006). The evidence review focused on pain assessment and relief. A number of studies, of varying designs, were identified which consistently showed that a significant proportion of patients with venous leg ulcers experience moderate to severe pain. An individual management plan incorporating pain assessment and relief and therapy is therefore recommended.
Professional perspectives:
97% of DN team leaders surveyed agreed that this indicator represents good quality nursing care. Comments from individual nurses were that because a low number of district nurses carry out Dopplers, the individual management plans are delayed, so then patients are seen twice a week instead of weekly – which is a waste of resources. Originally this indicator said “within the last three months”. A sub-group of the DN strategy group thought that three months wasn’t enough and it should happen at each visit or as clinically indicated.
Perceptions of current practice:
51% of DN team leaders surveyed agreed or strongly agreed that there was variability in the documentation of Individual Management Plans for leg ulcer patients, putting this indicator in the second quartile.

Fits in with PCT and national priorities:
No NHS Bristol commissioner made any specific comments about this indicator.
Views of BCH management team:
A Bristol Community Health manager wanted this indicator to clearly state that changes in the plan should be documented.

WC 23: Patients for whom the District nurse has been providing wound care for over four months should be discussed with, or referred to*, wound care specialist services.

*suggested that this only applies where the wound is deteriorating.

Evidence of a benefit:
This recommendation is modified from the NICE guideline on surgical site infection (NICE 2008). The recommendation was taken from an earlier NICE Technology appraisal (NICE 2001). No direct evidence to support the provision of specialist wound care services for managing difficult to heal surgical wounds was identified (Lewis 2001). However, specialist practitioners, such as tissue viability nurses, with specific training in wound care will have greater knowledge and skills to treat wounds where there is a delay in healing. We were not able to identify any evaluative studies of referral to specialist wound care services published since the NICE Appraisal.
Professional perspectives:
75% of DN team leaders surveyed agreed that this indicator represents good quality nursing care. Comments from individual nursing were that there were some concerns that the tissue viability nurses would be swamped and that good nursing practice for deteriorating wounds would suggest that liaison with the wound care specialists take place earlier than 4 months. A sub-group of the DN strategy group felt that this was a poor indicator, as nurses needed to use their professional judgement. They thought the wound care specialists might go out of business or be swamped.
Perceptions of current practice:
38% of DN team leaders surveyed agreed or strongly agreed that there was variability in liaising with wound care specialists, putting this indicator in the third quartile.
Fits in with PCT and national priorities:
An NHS Bristol commissioner thought this indicator should be kept.
Views of BCH management team:
A Bristol Community Health manager commented that this indicator needs to be amended to just ask for documentation when referred.

WC 26: Patients with venous leg ulcers should be given information about the following: compression hosiery, skin care, be discouraged from self treating with over the counter preparations, avoid trauma to their legs, refer themselves at the earliest signs of possible skin breakdown, be encouraged to remain mobile and take exercise, elevate the affected limb when immobile.

Evidence of a benefit:	
This indicator is based on a recommendation from the RCN guideline on Venous Leg Ulcers (RCN 2006) and is based on a review of the evidence on the prevention of recurrence of ulceration. The guideline identified two randomised trials showing that compression therapy reduced the likelihood of pressure ulcer recurrence. No evidence on patient education was reported. We identified a systematic review (van Hecke 2008) of interventions to enhance patient concordance with leg ulcer treatment (compression therapy, lifestyle advice, leg exercises). The review identified two studies of educational interventions, both of which found that education improved patient concordance with treatment.	
Professional perspectives:	
100% of DN team leaders surveyed agreed that this indicator represents good quality nursing care. A comment from one team leader was that although it's a good idea to give patients information, this does not mean that they'll follow suggestions. A sub-group of the DN strategy group thought this was an important indicator that should be kept. They stated, "Information given needs to be standardised so it can be measured, in line with information prescriptions." They also commented that this indicator would be useful for a care pathways approach, as not just the district nursing service would be involved.	
Perceptions of current practice:	
45% of DN team leaders surveyed agreed or strongly agreed that there was variability in the recording of ulcer size, putting this indicator in the second quartile.	
Fits in with PCT and national priorities:	
A NHS Bristol commissioner thought this indicator should be kept.	
Views of BCH management team:	
A Bristol Community Health manager queried how information giving could be measured.	

WOUND CARE OUTCOME INDICATORS

WC 32	Length of time a wound takes to heal completely. (patient record) Or Proportion of wounds healing within a set period (patient record).
Comments: This would vary by type of wound (e.g. pressure, venous, arterial) and so separate reporting would be sensible. Tissue viability nurses need to clearly define the different types of wounds and estimate the length of time ideally each type would take to heal, especially those with complications and without patient concordance. One commissioner stated that she thought length of time a wound takes to heal completely would be preferable.	

WC 33	Recurrence rates (patient record)
Comments: Need to define a suitable length of time within which a new wound would be considered to a recurrence. Twelve months was suggested, but again tissue viability nurse input was needed. Surgical wounds are unlikely to reoccur. Pressure ulcers rarely re-occur, estimated at 10% although the tissue viability nurses have recently done an audit of pressure ulcers in Bristol Community Health. A commissioner commented that this might be appropriate for leg ulcers only.	

WC36	Rates of wound infection - signs and symptoms of clinical infection and changes in bacterial flora. (patient record)
Comments: Suggested measurement – proportion of patients who become systemically unwell and require oral or intravenous antibiotics. There is some risk of perverse incentives with this indicator because if 'success' is defined as fewer patients using oral or intravenous antibiotics, then patients needing these drug treatments may be less likely to receive them. This indicator would be appropriate for all wounds. A commissioner thought that this indicator would be helpful.	

Further comments
The district nurses thought that another potential outcome indicator would be a quality of life questionnaire for wound care patients that measures the impact of pain and smell.

DIABETES PROCESS INDICATORS

DB 1: All diabetic patients who are insulin requiring for whom the district nurses administer insulin should have a record of an individual care plan, reviewed at least annually.

Evidence of a benefit:
This process indicator is based on a recommendation from the NICE guideline on Type 1 Diabetes (NICE 2004). NICE guidelines are based on systematic reviews of the evidence and/or expert consensus and ratified through public consultation with relevant stakeholder groups. No evidence was identified within the guideline on the use of individual care plans. The recommendation upon which the indicator is based was given a D grade, meaning that it is based upon expert consensus.
Professional perspectives:
81% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care, which makes it of one of the top 11 indicators indicating good quality nursing care. A sub-group of the DN strategy team thought that this indicator was an important, but not strong indicator of quality of care. They commented, "Annual review is very poor, should be monthly unless deterioration/ changes in treatment then more frequently as determined by condition." They recommended "maybe keep".
Perceptions of current practice
35% of the DNs agreed or strongly agreed that there was variability across the profession in recording individual care plans, which puts this indicator in the bottom quartile (range across all indicators 32%-80%).

Fits in with PCT and national priorities:

A NHS Bristol commissioner stated that the issue with care plans was ensuring that there was integration between primary and community care. Multi-professional care plans are necessary.

Views of BCH management team:

A BCH senior manager queried whether annual review was relevant. Her concern was that this needed to be embedded into the system through the use of RIO (the IT system coming on line for Bristol Community Health from 2010 – DN services will not be part of the first wave). She suggested that if this indicator is adopted, then the first year the aim should be ensuring that an individual care plan is carried out. Following an audit, the aim for subsequent years should be highlighting areas to improve. "Maybe keep".

Other comments:

A specialist diabetes nurse commented that the value of this indicator was in getting the district nurse and the practice lead on diabetes (practice nurse or GP) to work together to develop useful care plans. Practice diabetes leads generally have more training and expertise in diabetes. A specialist diabetes GP thought this indicator was "really important" and the starting point for any changes in diabetes care, but queried whether it was already commonplace.

DB 26 All diabetic patients who are insulin dependent for whom the district nurses administer insulin should have a formal review carried out at annually. This review should include • a structured assessment of self-monitoring skills, the quality and use made of the results obtained and the equipment used •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).

Evidence of a benefit:*Formal annual review:*

This indicator is based on a recommendation from the NICE guideline on Type 1 Diabetes (NICE 2004). NICE guidelines are based on systematic reviews of the evidence and/or expert consensus and ratified through public consultation with relevant stakeholder groups.

No comparative studies addressing the concept of an integrated review were identified. One descriptive study was identified (Riazi 2000) suggesting that an annual review improved both satisfaction with care and patient motivation. Annual surveillance of a number of potentially developing late complications of diabetes is also consistent with other major national and international guidelines.

Structured assessment of self-monitoring skills:

This indicator is based on a recommendation from the NICE guideline on Type 1 Diabetes. Based on evidence from a systematic review (Coster 2004), the guideline development group concluded that self-monitoring does not, in itself, appear to improve blood glucose control. However, it is necessary for flexible insulin regimens and the group therefore considered that appropriate training and quality of skills review is necessary and normal practice.

Blood pressure measurement:

This indicator is based on a recommendation from the NICE guideline on Type 2 Diabetes (NICE 2008). A prospective observational study of 4031 type 2 diabetics (Adler 2000) found that the risk of diabetic complications was strongly associated with raised blood pressure. Furthermore, each 10 mm Hg decrease in updated mean systolic blood pressure was associated with reductions in risk of 12% for any

complication related to diabetes. The NICE guideline also identified a large amount of RCT evidence demonstrating that blood pressuring lowering agents reduce the risk of a wide range of diabetic complications. Hence surveillance of blood pressure (and resulting intervention) is an important aspect of diabetic care.

Recommendation for an eye check:

This indicator was modified from the NICE guidelines on Type 1 and 2 Diabetes, which recommend annual screening for retinopathy. The UK National Screening Programme recommends that all diabetic patients over the age of 12 are invited annually for retinopathy testing. At present, however, retinopathy screening is only available at screening centres and in some GP surgeries. It is therefore not feasible for many housebound patients.

This indicator is an amalgamation of several other indicators and emerged from the advisory group meeting in June.

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.

Evidence of a benefit:

Taken from NICE guidelines on Type 1 (2004) and Type 2 (2006) Diabetes.

Evidence on the usefulness of HbA1c measurement:

Two systematic reviews were identified by the NICE guideline development group. The first (Coster 2000) reported on randomised controlled trial evidence supporting the use of glycated haemoglobin measurements, in particular results cited from the Diabetes Complications Control Trial (DCCT) demonstrated the usefulness of these assays in contributing to improved long-term blood glucose control and a reduction in morbidity. A second systematic review (Larson 1997) reported that HbA1c values allowed clinicians to identify patients with poor glycaemic control and concluded that Glycated haemoglobin is the most clinically appropriate test of long-term glycaemia and should be used in routine management of Type 1 diabetes

Evidence on the frequency of monitoring:

The optimal frequency of monitoring has not been established empirically. The NICE guideline development group recommended that clinical monitoring should be performed every two to six months for patients with Type 1 diabetes. The NICE guideline for Type 2 diabetes did not include an evidence review, however the guideline development group recommended that HbA1c should be monitored two to six monthly until the blood glucose level is stable on unchanging therapy and six monthly thereafter (NICE 2006).

Professional consensus:

90% of DN team leaders surveyed across Bristol PCT agreed that this indicator represents good quality nursing care.

A sub-group of the DN strategy group stated that this was a strong clinical indicator for diabetes, but they were “not sure” whether to retain it as this indicator is more appropriate for measuring adherence to a care pathway than to the quality of the district nursing service.

Perceptions of current practice

40% percent of DN team leaders surveyed across Bristol PCT agreed or strongly agreed that there was variability amongst their colleagues in the monitoring of blood glucose levels, which puts this indicator in the 3 rd quartile (range across all indicators 32%-80%).
Fits in with PCT and national priorities:
A senior NHS Bristol commissioner made no specific comment about this indicator.
Views of BCH management team:
A senior BCH manager wanted to “keep” this indicator.

DB 23: Patients who are insulin requiring for whom the district nurses administer insulin should be advised how to recognise and manage the potential risks of their diabetes, such as hypoglycaemia and hyperglycaemia.

Evidence of a benefit:
This indicator was suggested by a specialist diabetes nurse.
Professional perspectives:
This indicator was not included in the DN team leaders survey, as it was suggested after the survey took place.
Perceptions of current practice:
This indicator was not included in the DN team leaders survey, as it was suggested after the survey took place.
Fits in with PCT and national priorities:
This indicator was not included as part of the discussion, as it was suggested after the survey took place.
Views of BCH management team:
This indicator was not included as part of the discussion, as it was suggested after the survey took place.
Comments:
A specialist diabetes nurse suggested that patients be aware of the signs and symptoms of hypoglycaemia and hyperglycaemia. She is particularly concerned about patients being aware of hypoglycaemia, for example, how to recognise hypoglycaemia, how to manage it and who to inform. This could also include information on the ‘sick day rules’, or how to manage your diabetes when you feel unwell. This could be part of the annual review. A specialist diabetes GP thought this indicator sounded good and clear.

DIABETES OUTCOME INDICATORS

DB 27	Unplanned contact with health services due to hypoglycaemia for diabetic patients who are insulin requiring for whom the district nurses administer insulin. (HES data for emergency hospital admissions).
Comments: The district nurses were more uneasy about this outcome indicator, as they felt they had much less direct control over this outcome and other professionals are much more likely to be involved. A specialist diabetes nurse thought that obtaining data to measure this indicator could be difficult. The health services most often called in this scenario are paramedics, A&E or Out of Hours. Data could be obtained from A&E and Out of Hours through GP records, but paramedics do not pass their data on to GPs. A specialist diabetes GP agreed that he thought these data were not available, as a commissioner from North Somerset just attempted to access paramedic data and found it very difficult. Furthermore, he thought the numbers of patients who might	

go to A&E or Out of Hours were so small, that this indicator might be relatively useless.

A specialist diabetes nurse also commented that more people are admitted with hypo attacks rather than hyper and so this outcome indicator would be more appropriate than the hyper one below.

A colleague at the Unit of Primary Health Care who works with HES data confirmed that it is not currently possible to pick out only housebound diabetic patients receiving district nursing care.

DB 28	Unplanned contact with health services due to hyperglycaemia for diabetic patients who are insulin requiring for whom the district nurses administer insulin. (HES data for emergency hospital admissions).
<p>Comments: The district nurses were more uneasy about this outcome indicator, as they felt they had much less direct control over this outcome and other professionals are much more likely to be involved.</p> <p>A specialist diabetes nurse thought that obtaining data to measure this indicator could be difficult. The health services most often called in this scenario are paramedics, A&E or Out of Hours. Data could be obtained from A&E and Out of Hours through GP records, but paramedics do not pass their data on to GPs. A specialist diabetes GP agreed that he thought these data were not available either from HES or paramedic data, as a commissioner from North Somerset just attempted to access paramedic data and found it very difficult. Furthermore, he thought the numbers of patients who might go to A&E or Out of Hours were so small, that this indicator might be relatively useless.</p> <p>A colleague at the Unit of Primary Health Care who works with HES data confirmed that it is not currently possible to pick out only housebound diabetic patients receiving district nursing care.</p>	

DB 30	Glycaemic control, measured by HbA1c levels for diabetic patients who are insulin requiring for whom the district nurses administer insulin (percentage of patients < 7.5) (collected via QOF)
<p>Comments: A specialist diabetes nurse thought that what was most important was what nurses did, when they found a HbA1c level that was of concern. She would like them to talk to either a specialist diabetes nurse or the GP.</p> <p>She thought a better indicator would be number of hypo attacks that the patient had in the last month i.e. 0, 1-3, 3-5, >5. If they were greater than 5, then she would want the district nurse to be taking an appropriate course of action. She thought these data could be obtained from asking the patient, but there are concerns whether confused, elderly patients could remember accurately the number of hypo attacks they had in the previous month. A specialist diabetes GP thought that an indicator for the number of hypo attacks in the past month was a good idea, but as there is already a process indicator on HbA1c levels, he thought that an outcome indicator on number of hypo attacks would be redundant and less workable.</p> <p>A specialist diabetes GP wondered how to get data on HbA1c levels. Glycaemic levels will be recorded on the records of all diabetic patients in a GP practice, but he estimated that only about 20 or so of these would be housebound patients receiving insulin daily from district nurses. So district nurses would need to identify who these patients were and pull out the data from GP records themselves.</p> <p>Neither the specialist nurse nor the specialist GP were happy with the <7.5% level for this group of elderly housebound patients. The nurse thought that acceptable levels for this group of patients would be 7.5-8.5%. The specialist GP thought that we should follow the latest guidance issued in April 2009 which gives bands of</p>	

<7%, <8% and <9%. He suggested using the <9% level.

END OF LIFE CARE PROCESS INDICATORS

EL 1: There is a record that a structured assessment has been conducted within 3 months of the date of referral for end of life care patients.

Evidence of a benefit:
The Gold Standard Framework (GSF) recommends that every patient should have their symptoms, problems and concerns (physical, psychological, social, practical and spiritual) assessed, recorded. The NICE Supportive and Palliative Care cancer service guidance (NICE 2004) also recommends that Structured assessments of patients' needs are undertaken and should encompass needs related to information, communication, psychological support, social support, spiritual support, palliative care and rehabilitation.
Professional perspectives:
97% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. A sub-group of the DN strategy team stated that this was an important indicator, but that three months was too long. They thought two weeks would be better.
Perceptions of current practice:
57% of DN team leaders surveyed agreed or strongly agreed that there was variability in the recording of structured assessments for end of life care patients, putting this indicator in the first quartile.
Fits in with PCT and national priorities:
A commissioner stated that they have been developing documentation for structured assessment across Bristol, North Somerset and South Gloucestershire that has just been sent off for approval. It includes advance care planning and is 5-6 documents in total. The intention is for the district nurse to fill it in with the family and then it is signed off by the GP.
Views of BCH management team:
A senior BCH manager stated that she wanted to "keep" this indicator and agreed that two weeks would be better.

EL 5: A member of the district nursing team attends regular (at least three monthly) multidisciplinary team meetings.

<p>Evidence of a benefit:</p> <p>The recommendation for multidisciplinary team meetings comes from the Gold Standard Framework (GSF), which recommends that meetings are held monthly. Since April 2006, the General Practice Quality and Outcomes Framework (QOF) has awarded three points for reviewing those patients on the palliative care register at a multidisciplinary team meeting (MDT) held at least three-monthly. The GSF was developed from a non-systematic overview of literature on palliative care in primary care, which included varying grades of evidence (systematic reviews, trials, surveys and expert opinion based on experience). The author of the overview (Thomas 2003) concluded that <i>“Improving communication and co-ordination are seen as important in better supporting patients, though difficult to evaluate, but several factors have been shown to make an improvement e.g. using registers, link workers, co-ordinated teams etc”</i> (p. 7). An evaluation (Thomas, 2001) of the pilot of the GSF in 12 GP practices in West Yorkshire reported that the majority of practices felt that the specific changes introduced e.g. registers and multidisciplinary team meetings had produced improvements in patient care, specifically improving communication, teamwork, identification, assessment, planning and raised awareness. A qualitative study of four GP practices in which the GSF had been implemented (King 2003) found that most participants felt that the framework had led to improved communication within the primary health care team and the role of regular multi-disciplinary meetings was seen as very important in achieving this.</p>
<p>Professional perspectives:</p> <p>88% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. A sub-group of the DN strategy group stated that this was an important indicator and wanted to “keep” it, although they would modify three monthly to monthly.</p>
<p>Perceptions of current practice:</p> <p>42% of the DN team leaders surveyed agreed or strongly agreed that there was variation amongst DNs in terms of attendance at multi-disciplinary meetings, putting this indicator in the 3rd quartile (range across all indicators 32%-80%).</p>
<p>Fits in with PCT and national priorities:</p> <p>A NHS Bristol manager stated that although the Gold Standards Framework suggests three monthly, he thought monthly would be better. In a recent audit of end of life care across GP practices, they found that 50% had monthly meetings and 20% had three monthly meetings.</p>
<p>Views of BCH management team:</p> <p>A senior BCH manager queried whether attending a meeting was a good standard of quality of care. She also thought that monthly attendance would be better than three monthly.</p>
<p>Comments:</p> <p>Surveyed DN team leaders commented that the convening of meetings was usually up to GP practices rather than DNs. In some practices, GPs convene regularly while in others these rarely take place. So, meeting this quality indicator may be out of the control of DNs.</p>

References:

Thomas, K (2003) 'Caring for the Dying at Home: Companions on the Journey'. Chapter 5. Abingdon: Radcliffe Medical Press.

Thomas, K (2001) Available from

http://www.goldstandardsframework.nhs.uk/evaluation_and_research.php

King (2003) Gold Standards Framework, Phase Two: Qualitative Case Study Evaluation Executive Summary. Available from

http://www.goldstandardsframework.nhs.uk/evaluation_and_research.php

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 (+ code) • GP name • Problems/concerns • Anticipated needs • Information given/carer issues • DS 1500 date • CNS • Hospice/SPC • OOH handover form date sent • Preferred place of care stated + date.

Evidence of a benefit:
<p>This indicator is based on the Gold Standards Framework (GSF), which states the need for a palliative care register and outlines the register's content. The GSF was developed from a non-systematic overview of literature on palliative care in primary care, which included varying grades of evidence (systematic reviews, trials, surveys and expert opinion based on experience). The author of the overview (Thomas 2003) concluded that "<i>Improving communication and co-ordination are seen as important in better supporting patients, though difficult to evaluate, but several factors have been shown to make an improvement e.g. using registers, link workers, co-ordinated teams etc</i>" (p. 7).</p> <p>An evaluation (Thomas, 2001) of the pilot of the GSF in 12 GP practices in West Yorkshire reported that the majority of practices felt that the specific changes introduced e.g. registers and multidisciplinary team meetings had produced improvements in patient care, specifically improving communication, teamwork, identification, assessment, planning and raised awareness. In a qualitative study (King 2003) of four practices which had implemented a register participants reported that the register improved awareness of patients and their needs, allowing more anticipatory care. Above all, the register helped them to be more consistent in the care they gave to all palliative care patients, decreasing the likelihood that some would "slip through the net".</p>
Professional perspectives:
<p>94% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. Some respondents commented that professional colleagues from other disciplines are sometimes unwilling to hand over this information.</p> <p>A sub-group of the DN strategy team stated that this was a strong indicator and they recommended keeping it.</p>
Perceptions of current practice:
<p>57% of the DN team leaders agreed or strongly agreed that there was variation in the use of end of life care registers, putting this indicator in the top quartile (range across all indicators 32%-80%)</p>
Fits in with PCT and national priorities:
<p>A senior NHS Bristol manager wanted to keep this indicator and commented that Bristol PCT, along with the wider South West SHA, have agreed to implement the Adastra electronic end of life care register. She suggested that this indicator be</p>

EL 12: Newly requested syringe drivers should be set up within four hours of the request.

<p>Evidence of a benefit:</p> <p>This indicator is taken from the Liverpool Care Pathway for the Dying Patient (LCP). The LCP was developed by the Specialist Palliative Care Team at the Royal Liverpool and Broadgreen University Hospitals NHS and the Marie Curie Hospice, Liverpool. It is described as evidence-based, although the exact methods of development and the underlying evidence base do not appear to be publically available. The LCP has been recommended for use by NICE (2004) and the Department of Health (2008). 97% of DN team leaders surveyed across Bristol PCT felt that this indicator was likely to lead to a better outcome for the patient, and 100% thought that it would improve patient/carer satisfaction.</p>
<p>Professional perspectives:</p> <p>100% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. However, they commented that the speed that syringe drivers could be set up depended on the availability of the drugs, whether the chemist was open and accessing the GP to authorise the prescription. In some cases where they thought a syringe driver would be necessary and they might run into these complications, they obtained the prescription and the drugs before they were required. Some DN team leaders thought 4 hours was too long. A sub-group of the DN strategy group were not sure if this is a good measure of quality. They stated, "This removes nurses' professional decision making in cases where he/she may feel this is not the best clinical course of action"</p>
<p>Perceptions of current practice:</p> <p>38% of DN team leaders surveyed agreed or strongly agreed that there was variability in practice in terms of setting up syringe drivers within 4 hours, putting this indicator in the 3rd quartile (range across all indicators 32% -80%).</p>
<p>Fits in with PCT and national priorities:</p> <p>A senior NHS Bristol manager wanted to keep this indicator and queried whether four hours would be a minimum or if it would be a stretch. She suggested that a potential target could be 50% set up within 2 hours. Another NHS Bristol commissioner thought the implementation of this indicator would be excellent. In looking at service gaps in end of life care provision, problems with syringe drivers consistently comes up. He would like this indicator to be enforced 24/7.</p>
<p>Views of BCH management team:</p> <p>A senior BCH manager wanted to keep this indicator and commented that patients should not have to wait 4 hours, as this indicator concerns those patients in their own homes not in care homes. She also noted that to meet this indicator, nurses would need to record referral times systematically.</p>

EL 19: Carers who are looking after patients should have been offered information and advice on practical issues where needed, such as manual handling, managing distressing symptoms and dealing with incontinence and other body fluids.

Evidence of a benefit:
<p>This recommendation was modified from a recommendation from the NICE cancer service guidance on Supportive and Palliative Care (2004). The guideline cites one systematic review (Harding 2003) of interventions for caregivers in cancer and palliative care, which included three studies (two RCTs and one before-and-after study) of interventions based on problem-solving and coping skills. The intervention was effective in the before-and-after study, and effective for a distressed subsample only in one of the RCTs (no effects were observed in the second RCT). It is not clear from the report whether the interventions covered practical issues.</p> <p>We identified one systematic review (Bee 2008) of the practical information needs of informal caregivers providing home-based palliative and end-of-life care to people with advanced cancer. Categories of need identified included medication and pain management; management of physical symptoms and comfort; nutrition; personal hygiene and elimination; positioning of the patient; availability of and access to technical equipment; professional/local support; and emergency measures.</p>
Professional perspectives:
<p>100% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care.</p> <p>A sub-group of the DN strategy group thought that this was a good strong indicator and should be kept. They thought the giving of information must be documented.</p>
Perceptions of current practice:
<p>33% of DN team leaders surveyed agreed or strongly agreed that there was variability in giving carers advice and information, putting this indicator in the 4th quartile (range across all indicators 32% -80%).</p>
Fits in with PCT and national priorities:
<p>A NHS Bristol manager thought this indicator was important. She also thought this needed to link in with the local authority assessment.</p>
Views of BCH management team:
<p>A BCH manager thought that the carers' assessment was the local authority responsibility.</p>

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

Evidence of a benefit:
<p>This indicator is taken from the Liverpool Care Pathway for the Dying Patient (LCP). The LCP was developed by the Specialist Palliative Care Team at the Royal Liverpool and Broadgreen University Hospitals NHS and the Marie Curie Hospice, Liverpool. It is described as evidence-based, although the exact methods of development and the underlying evidence base do not appear to be publically available. The LCP has been recommended for use by NICE (2004) and the Department of Health (2008).</p>
Professional perspectives:
<p>100% of DN team leaders surveyed across Bristol PCT agreed that this indicator represented good quality nursing care. 100% of DN team leaders surveyed across Bristol PCT felt that this indicator was likely to lead to a better outcome for the</p>

<p>patient, and 100% thought that it would improve patient/carer satisfaction. A sub-group of the DN strategy group was not sure if this indicator should be retained.</p>
<p>Perceptions of current practice:</p>
<p>38% of the DN team leaders surveyed agreed or strongly agreed that there was variability amongst their colleagues in terms of notifying out of hours when a syringe driver is set up, putting this indicator in the 3rd quartile (range across all indicators 32% - 80%).</p>
<p>Fits in with PCT and national priorities:</p>
<p>A senior NHS Bristol manager wanted to keep this indicator. Another NHS Bristol commissioner thought this sounded reasonable.</p>
<p>Views of BCH management team:</p>
<p>A senior BCH manager wanted to keep this indicator.</p>

END OF LIFE CARE OUTCOME INDICATORS

EL 22	Death at preferred place (Patient records and ONS)
<p>Comments: Two commissioners commented that this indicator was key. One commissioner felt that this indicator was closely related to the next indicator on a comfortable, pain free death. To capture accurate data on this, she believed that carers would need to be questioned.</p>	

EL 25	Comfortable, pain free death (pain assessment tool) OR quality of life (end of life-specific tool)
<p>Comments: A minority of patients do not want this type of death. They wish to fight and may not want pain relief. These patients could be exception reported. Some, but not all, DNs use pain assessment tools and specific tools used can also vary. Gold Standards Framework provides one pain assessment tool. Inclusion of nausea as well? Two commissioners commented that this indicator was key. One commissioner thought that part of the problem was that GPs don't like to manage end of life care because of fears post- Shipman and so there is a reluctance to prescribe adequate pain relief. She thought pre and post death data could be collected for this indicator from district nurse records.</p>	

EL 26	Carers felt supported (questionnaire)
<p>Comments: Specify that these are informal carers, as opposed to, e.g. social services. Gold Standards Framework documentation includes a carer's satisfaction questionnaire that could be considered. This could be administered at the bereavement visit, except to carers who do not want to complete it. Two commissioners thought this indicator was key. Part of helping carers to feel supported is providing respite care.</p>	

Appendix 3 Excluded indicators

EXCLUDED DIABETES INDICATORS

DB 2: Community nurses should offer all housebound patients with diabetes structured diabetes education covering all major aspects of diabetes self-care and the reasons for it and periodically thereafter according to agreed need following yearly assessment.
Reason for exclusion: Structured diabetes education run locally as group sessions. Not feasible for district nursing service users to attend as they are housebound, some have cognitive issues, may have had diabetes for years.
DB3: All housebound patients with diabetes should have an education programme designed and delivered by members of the multidisciplinary diabetes team in accordance with the principles of adult education
Reason for exclusion: Not suitable for housebound patients.
DB 4: Community nurses caring for diabetic housebound patients should consider incorporating educational interchange at all opportunities when in contact with a person with diabetes. The professional should have the skills and training to make best use of such time
Reason for exclusion: Opportunistic education is given but rarely recorded in patients' notes therefore not measureable (asking pts themselves was also considered but not thought to be reliable due to nature of patient group).
DB 5: Community nurses should offer patients with diabetes an annual formal review of self-care and needs and the agenda addressed each year should vary according to the priorities agreed between the healthcare professional and the person with diabetes
Reason for exclusion: Dropped because covered by DB1 (individual care plan) and DB 26 (annual review). Very few diabetic patients seen by district nurses are self-caring.
DB 6: A structured assessment of patient self-monitoring skills, the quality and use made of the results obtained and the equipment used should be made annually.
Reason for exclusion: Covered by annual review (DB 26). Few DN diabetic patients self-monitor (self-monitoring skills were therefore dropped from the final DB 26 indicator).
DB 8: Site-of-care measurement, or before-clinical-consultation measurement, should be provided
Reason for exclusion: Taken directly from a NICE guideline. No one at the DN workshop was clear what it meant therefore dropped.
DB 9: HbA1c results should be communicated to the person with type 1 diabetes after each measurement. The term 'A1c' can be used for simplicity

Reason for exclusion: It is usually the GP or practice nurse that follows this up not the DN.
DB 10: Housebound patients with diabetes should have discussed the hypoglycaemic effects of different foods in the context of the insulin preparations chosen to match those food choices
Reason for exclusion: Would only apply to Type 1 diabetes patients who administered own insulin. Not considered appropriate for patient group.
DB 12: Community nurses caring for patients with Type 1 diabetes should be able to recognise when hypoglycaemia becomes unusually problematic or of increased frequency and carry out a review of the following possibly contributory causes: • inappropriate insulin regimens (incorrect dose distributions and insulin types) • meal and activity patterns, including alcohol • injection technique and skills, including insulin resuspension • possible organic causes including gastroparesis • changes in insulin sensitivity (the latter including drugs affecting the rennin angiotensin system and renal failure) • psychological problems • previous physical activity • lack of appropriate knowledge and skills for self management
Reason for exclusion: Difficult to measure awareness. Suggested could be measured by unplanned contact with health services - outcome indicator (DB 27).
DB 13: Community nurses should measure blood pressure at least annually in a diabetic patient without previously diagnosed hypertension or renal disease. Offer and reinforce preventive lifestyle advice.
Reason for exclusion: Covered by annual review (DB 26)
DB 14: Community nurses should repeat blood pressure (BP) measurements within: • 1 month if BP is higher than 150/90 mmHg • 2 months if BP is higher than 140/80 mmHg • 2 months if BP is higher than 130/80 mmHg and there is kidney, eye or cerebrovascular damage. Offer lifestyle advice (diet and exercise)
Reason for exclusion: BP measurement usually GP lead since QoF
DB 15: Community nurses should formally enquire annually about the development of neuropathic symptoms causing distress and refer for medical advice.
Reason for exclusion: Not measureable (not documented in pts' notes).
DB 16: Community nurses will draw up a protocol to ensure patient safety where there is no viable alternative to pre-mixing/pre loading insulin for later use. (This should address the preparation procedure, storage and administration of the insulin. The protocol should include:• raising awareness of the potential risks of premixing/pre-loading, allowing for informed choice and obtaining written consent from the patient or their carer •correct procedure for preparation to reduce risk of infection • correct storage of insulin to reduce risk of incorrect drug administration • education for patient/carer to ensure right dose is given at the righttime using the correct technique • plans agreed between patient and nurse to ensure adequate support, monitoring of diabetes control and well being)
Reason for exclusion: Advanced preparation of insulin no longer done due to safety concerns
DB 17: Community nurses will not leave insulin pre-drawn for any longer than 24 hours (Exception: Under certain circumstances it may be considered

necessary to pre-load several days supply of insulin syringes. This will ultimately depend on patient assessment and need for supervision. No more than one week's supply of insulin should be left pre-loaded)
Reason for exclusion: Advanced preparation of insulin no longer done due to safety concerns
DB 18: Storage: Community nurses will ensure appropriate storage is available for pre-loaded insulin syringes. (These should be stored in the main part of the refrigerator at 2 to 8°C. They should not be placed in the freezer or at the back of the fridge. The needle should point upwards in mixtures containing isophane insulin to prevent blockage by suspended substances in the insulin. Syringes should be stored in a sealable container, clearly labelled with the following information: • date • number of syringes • name of insulin preparation • preloaded dose • instructions for administration, e.g. just before or 30 minutes before food at times agreed with patient and documented in the nursing notes • drawn up by. Separate containers should be used for insulin to be delivered at different times of day, particularly if the syringe contains a different dosage or type of insulin).
Reason for exclusion: Advanced preparation of insulin no longer done due to safety concerns
DB 19: Disposal of sharps: Community nurses will ensure that patients should have yellow sharps boxes to dispose of syringes. They are available on prescription, and should be returned to their GP's surgery for disposal
Reason for exclusion: Not under DN control.
DB 20: All diabetic patients should be referred annually for an eye check by an ophthalmic optician (or patient refusal recorded).
Reason for exclusion: Amalgamated into DB 26 (annual review)
DB 21: Patients with one or more risk factors for foot ulceration should be referred to a podiatrist (or patient refusal recorded).
Reason for exclusion: Amalgamated into DB 26 (annual review)
DB 22: Patients and carers should be aware of the clinical guidelines for management of diabetes and be referred to the appropriate sources of patient information.
Reason for exclusion: Difficult to measure. Not viewed as a priority/important measure of quality by DN working group.
DB 24: Patients and carers should be involved in shared decision making about management
Reason for exclusion: Important, but not measureable.
DB 25: Health professionals should respect and incorporate knowledge and experience of people who have diabetes.
Reason for exclusion: Not measureable.
DB 27: Unplanned contact with health services due to hypoglycaemia (outcome indicator)
Reason for exclusion: DN could not reasonably be held accountable for this unless it happened within an hour or two of visit/insulin administration. Difficult to get this data. Rare event.
DB 28: Unplanned contact with health services due to hyperglycaemia (outcome indicator)
Reason for exclusion: DN could not reasonably be held accountable for this

unless it happened within an hour or two of visit/insulin administration. Difficult to get this data. Rare event.
DB 29: Number of lower limb amputations
Reason for exclusion: Long term outcome therefore can't be linked to recent care. Influenced by many factors outside of DN control.
DB 30: Glycaemic control, measured by HbA1c levels (<7.5)
Reason for exclusion: <7.5 not appropriate for all diabetics. For example, some elderly kept at higher levels to avoid falls.
DB 32: Flu vaccination
Reason for exclusion: Not a diabetes outcome
DB 33: Diabetes related mortality
Reason for exclusion: Long term outcome therefore can't be linked to recent care. Influenced by many factors outside of DN control.
DB 34: Diabetes-related complications (e.g. vascular, neuropathy, retinopathy, nephropathy etc.)
Reason for exclusion: Long term outcome therefore can't be linked to recent care. Influenced by many factors outside of DN control. Even some pts with well-controlled diabetes can still develop complications.

EXCLUDED END OF LIFE CARE INDICATORS

EL 1: There is a record that a single assessment process has been conducted within two weeks of the date of referral for end of life care patients.
Reason for exclusion: Covered by holistic assessment (OG 1)
EL 2: Patients should not be subjected to unnecessary repeated assessments from different professionals aiming to elicit similar information. To avoid such problems providers and teams should develop common approaches to assessment, including the use of specific assessment tools linked with other domains such as continuing, social and intermediate care.
Reason for exclusion: Not entirely within DN control
EL 3: District nurses are familiar with the 15 'tripwires' of conditions and drug usage * and know when to seek further help. * 15 tripwires include: pain, nausea and vomiting, intestinal obstruction, breathlessness, cough, haemoptysis, respiratory tract secretions, spinal cord compression, superior vena cava, obstruction, hypercalcaemia, management of the last few days of life, terminal restlessness and agitation, use of steroids, miscellaneous problems, indications for the use of syringe driver
Reason for exclusion: Difficult to measure awareness. Covered by training indicator (OG 4, later also deleted).
EL 4: Health and social care professionals providing day-to-day care to patients should know when to seek advice from, or refer to, specialist palliative care services.
Reason for exclusion: Difficult to measure. Covered by training indicator (OG 4, later also deleted).
EL 6: District nurses pass on information to other relevant services about the person under their care e.g. hospital/ oncology, palliative nurses, GP surgery.
Reason for exclusion: Not necessarily documented therefore difficult to measure.
EL 8: Patient and carer needs are communicated within the team and to

specialist colleagues, as appropriate.
Reason for exclusion: Not usually documented therefore difficult to measure.
EL 9: Mechanisms to achieve comprehensive and timely information transfer between teams/services about patient care and treatment plans (including prescribed drugs left in the home) should be in place. This might involve electronic transfer of information, hand-over forms or patient held records and correspondence.
Reason for exclusion: Difficult to measure. Not entirely within DN control. Some of this information should be covered by register (EL7)
EL 10: District nursing services should have the capacity to provide intermittent visiting, day or night, which can be increased in frequency as required.
Reason for exclusion: Out of hours district nursing services already available. Not within control of individual DNs or teams.
EL 11: Primary Care Organisations should make arrangements to ensure 24-hour, seven days a week access to medications that may be required in a dying patient's home. They should work within existing recommendations for making medications available to patients at the time and place of consultation (in this case, the patient's home). This could be effected through: <ul style="list-style-type: none"> • pre-emptive planning • leaving a supply of appropriate prescribed medications in the home • making prescribed medications available to out-of-hours providers through the provision of 'palliative care bags' for identified patients.
Reason for exclusion: Not within DN control.
EL 13: GP practice is made aware that the patient has entered the dying phase
Reason for exclusion: DN workshop attendees decided not to keep (less important indicator of quality)
EL 14: Relative/carer understands that <ul style="list-style-type: none"> • focus of care has changed to care of the dying. • a specific plan of care has been activated in support of the key goals of care for the last hours or days of life and their concerns are identified, valued and documented
Reason for exclusion: Not always done by the DN, might be GP. Wouldn't be the DNs decision to stop medical drugs.
EL 15: Relative/carer understands that <ul style="list-style-type: none"> • focus of care has changed to care of the dying. • a specific plan of care has been activated in support of the key goals of care for the last hours or days of life and their concerns are identified, valued and documented
Reason for exclusion: Duplicate of EL 14
EL 16: Carers and other family members have information about the likely progress of the person's condition and information about services that are available.
Reason for exclusion: Can only do this if the pt allows you to disclose this information therefore not always within DN control.
EL 17: Teams should ensure that patients and carers are given information on who they can contact at any time of day or night to obtain advice, support or services. Written information should include details of who to contact locally if patients have particular questions about their treatment or care. These resources should be available in languages appropriate to the local

community, with specific attention to issues affecting black and ethnic minority communities and people with sensory impairment or learning disabilities. Service providers may wish to consider the provision of a single, local, 24-hour, seven days a week telephone access-point for patients and carers.
Reason for exclusion: Dropped following DN workshop. Availability of leaflets in other languages outside of DN control, as is 24 hour service access point. Standard patient record contains information on who to contact, numbers and hours of operation. Standard, wouldn't really not be done therefore unlikely to be any variability.
EL 18: Where carers are providing a substantial amount of care on a regular basis, providers should ensure they are offered a separate assessment or respond positively when a carer asks for one, in accordance with The Carers (Recognition and Services) Act 1995.
Reason for exclusion: Outside of DN remit. Done by social services.
EL 23: Pain and symptom relief
Reason for exclusion: Not selected by DN strategy group.
EL 24: Patient/carer satisfaction
Reason for exclusion: Not selected by DN strategy group.

EXCLUDED WOUND CARE INDICATORS

WC 1: All patients should have a documented holistic nursing assessment
Reason for exclusion: Not specific to wound care patients, applies to all on DN caseload. Moved to organisational (OG2)
WC 3: Each patient should have a record of their pressure ulcer grade using the European Pressure Ulcer Advisory Panel Classification System.
Reason for exclusion: Merged with WC 2.
WC 4: All preventable pressure ulcers graded 2 and above should be documented as a local clinical incident
Reason for exclusion: Stakeholder group voted to exclude this indicator.
WC 5: All patients should have access to appropriate pressure relieving support surfaces and strategies, e.g. mattresses and cushions 24 hours per day
Reason for exclusion: Availability/provision of equipment often outside of DN control.
WC 6: All individuals with grade 1-2 ulcers should be placed on high specification foam mattress or cushion with pressure reducing properties combined with very close observation of skin changes and documented and positioning and repositioning scheme.
Reason for exclusion: Availability/provision of equipment often outside of DN control.
WC 7: If deterioration is detected or grade 3/4 ulcer detected or suspected an alternating pressure (AP) or continuous low flow system should be used where possible. (Exact requirements depend on the particular needs of the patient taking into account safety and weight).
Reason for exclusion: Availability/provision of equipment often outside of DN control.
WC 9: Each patient presenting for the their first or recurrent leg ulcer should have a documented record of a full clinical history and physical examination

and assessment should be ongoing thereafter, including BP, weight, urinalysis and Doppler and bacterial swab if indicated.
Reason for exclusion: Not selected by DN working group members when asked to prioritise indicators.
WC 10: Each patient should have a documented record of examination of both legs to determine type of ulcer (arterial, venous or mixed venous/arterial)
Reason for exclusion: Not selected by DN working group members when asked to prioritise indicators.
WC 13: Each patient should have a Doppler ultrasound conducted when ulcer is deteriorating, not fully healed within 12 weeks, recurrence, before recommencing pressure bandaging, sudden increase in size of ulcer, sudden increase in pain, change in foot colour or temperature.
Reason for exclusion: Only done when significant deterioration. Workshop participants said would not improve health outcomes, satisfaction, nor represents good nursing care.
WC 15: All patients with a diagnosed uncomplicated venous ulcer (ABPI must be greater than 0.6) should be offered graduated multi-layer high compression systems (including short stretch regimens) with adequate padding. This should be recorded in the patient's care plan or a record of refusal.
Reason for exclusion: Merged into WC8
WC 16: Each patient should receive application of compression therapy by a trained practitioner
Reason for exclusion: Level of training not specified in guideline of origin therefore unclear. Not selected by DN working group members when asked to prioritise indicators.
WC 17: Each patient with an ulcer should have their wound cleaned by warmed tap water or saline, avoiding use of products that commonly cause skin sensitivity such as lanolin and topical antibiotics. Dressings must be simple, low adherent and acceptable to the patient.
Reason for exclusion: Not selected by DN working group members when asked to prioritise indicators.
WC 18: Each patient who develops signs of skin sensitivity should be referred for a dermatologists opinion and patch testing
Reason for exclusion: DNs at workshop queried whether would improve outcomes. Also said would not improve satisfaction, did not represent good quality nursing care and not measureable.
WC 19: All patients with surgical wounds will have their dressings changed using an aseptic technique.
Reason for exclusion: surgical wounds only account for small part of DN caseload.
WC 20: Patients with surgical wounds will have wound cleansing using sterile saline up to 48 hours after surgery and tap water for wound cleansing after 48 hours if the surgical wound has separated or has been surgically opened to drain pus.
Reason for exclusion: surgical wounds only account for small part of DN caseload.
WC 21: For patients whose wounds are healing by secondary intention an appropriate interactive dressing will be used as advised by a tissue viability

nurse or another health care professional with tissue viability expertise.
Reason for exclusion: surgical wounds only account for small part of DN caseload.
WC 22: When surgical site infection is suspected (i.e. cellulitis), either de novo or because of treatment failure, give the patient an antibiotic that covers the likely causative organisms. Bacterial swabbing might be necessary.
Reason for exclusion: surgical wounds only account for small part of DN caseload.
WC 23: Patients for whom the District nurse has been providing wound care for over four months should be discussed with, or referred to, wound care specialist services.
Reason for exclusion: Would usually only do this is if the wound is deteriorating. Lots of variability between patients, not possible to specify standardised care.
WC 24: Pressure ulcers: patients and carers should be aware of the RCN clinical guideline The management of pressure ulcers in primary and secondary care (2005) and be referred to the version entitled Information for the Public
Reason for exclusion: Difficult to measure. Not considered to be an important measure of DN service quality by workshop attendees.
WC 25: Patients and carers should be informed about any potential risks/and or complications of having a pressure ulcer or leg ulcer
Reason for exclusion: Difficult to measure as unlikely to be recorded in patients' notes.
WC 26: Patients with venous leg ulcers should be given information about the following: compression hosiery, skin care, be discouraged from self treating with over the counter preparations, avoid trauma to their legs, refer themselves at the earliest signs of possible skin breakdown, be encouraged to remain mobile and take exercise, elevate the affected limb when immobile.
Reason for exclusion: Patient information should form part of the management plan. Merge into WC 14
WC 27: Patients and carers should be involved in shared decision making about management
Reason for exclusion: Very difficult to measure
WC 28: Health professionals should respect and incorporate knowledge and experience of people who have had a pressure ulcer leg ulcer.
Reason for exclusion: Very difficult to measure
WC 29: Each DN team should be able to produce on request a register of all patients currently on the caseload.
Reason for exclusion: Not specific to wound care. Moved to organisational (OG1)
WC 30: Each district nurse team should be able to produce on request a register of all patients who have a pressure ulcer.
Reason for exclusion: Covered by OG1
WC 31: Staff doing screening for arterial disease by Doppler measurement should have been trained in the procedure
Reason for exclusion:
WC 32: Length of time a wound takes to heal completely OR proportion of wounds healing within a set period

Reason for exclusion: Many other factors besides than DN care will influence this outcome. Lots of variation in wound healing. Not all wounds heal completely. See WC38
WC 33: Recurrence rate
Reason for exclusion: Difficult to determine timeframe within which a wound would be considered a recurrence. Many other factors besides DN care affect recurrence rates.
WC 34: No of full thickness pressure ulcers showing improvement after four weeks
Reason for exclusion: Not selected by DN strategy group
WC 35: Change in ulcer size. Rate of change in ulcer size
Reason for exclusion: Subjective to determine change, ulcers can be stable for some time then sudden changes. Not a reliable indicator
WC 36: Rates of wound infection - signs and symptoms of clinical infection and changes in bacterial flora
Reason for exclusion: Suggested measuring by no of pts who become systematically unwell and require oral or IV antibiotics. Stakeholder group Could create perverse incentive not to report wound infection. Could measure more objectively by doing a swab but not a good use of resources.
WC 37: Pain relieved
Reason for exclusion: Not selected by DN strategy group (15th June). See WC 40

Appendix 4 Details of district nurse survey April 2009

Table. Results of District nurse team leader survey April 2009

Indicator	Number (percentage) of DN team leaders answering agree/strongly agree				
	Improve health	Improve satisfaction	Under DN control	High quality care	Variation in practice
ORGANISATIONAL					
OG 1	Each DN team should be able to produce on request a register of all patients currently on the caseload and the main reasons for their involvement.				
	20 (62.4)	19 (59.4)	29 (90.7)	28 (81.2)	17 (53.2)
OG 2	All patients should have a documented holistic assessment carried out within three weeks of the date of the first DN visit.				
	28 (87.4)	16 (81.2)	25 (78.1)	31 (96.9)	22 (70.9)
WOUND CARE					
WC 2	All patients with PRESSURE ULCERS should have a documented initial or ongoing pressure ulcer assessment within the last month. Pressure Ulcer grade should be assessed using the EPUAP (European Pressure Ulcer Advisory Panel) classification system.				
	30 (93.8)	17 (84.3)	28 (87.4)	31 (96.9)	25 (80.6)
WC 4	All PRESSURE ULCERS graded 2 and above should be documented as a local clinical incident.				
	18 (56.3)	16 (50)	29 (90.6)	24 (75)	18 (60)
WC 8	Dressings for PRESSURE ULCERS should be used in accordance with the Bristol PCT wound management formulary.				
	27 (84.4)	23 (71.9)	30 (93.7)	28 (87.5)	15 (48.4)
WC 11	All patients with a LEG ULCER who have been under DN care for at least 6 weeks should have a documented assessment of screening for arterial disease by Doppler measurement of ankle/brachial pressure index.				
	32 (100)	30 (93.8)	28 (87.5)	32 (100)	18 (58.1)
WC 31	Staff doing screening for arterial disease by Doppler measurement should have been trained in the procedure.				
	30 (96.8)	28 (90.3)	28 (90.3)	30 (96.8)	15 (48.4)
WC 12	Each patient with a LEG ULCER should have a formal record of ulcer size documented at first presentation and at least monthly thereafter.				
	29 (90.7)	28 (78.1)	30 (93.8)	31 (96.8)	18 (58.1)

Indicator	Number (percentage) of DN team leaders answering agree/strongly agree				
	Improve health	Improve satisfaction	Under DN control	High quality care	Variation in practice
WC 14	All patients with a VENOUS LEG ULCER should have a documented individual management plan updated within the last three months that includes pain assessment and relief, dressings procedures and therapy e.g. compression bandaging, mobility and leg elevation.				
	30 (93.8)	29 (90.6)	30 (93.8)	30 (96.8)	16 (51.7)
WC 15	All patients with diagnosed uncomplicated VENOUS LEG ULCER (ABP > 0.6) should be treated with graduated multi-layer high compression systems (including short stretch regimens) with adequate padding. This should be recorded in the patient's care plan or a record of patient refusal.				
	31 (96.9)	29 (90.7)	30 (90.3)	31 (96.9)	13 (42)
WC 23	Patients for whom the district nurse has been providing wound care for over four months should be discussed with, or referred to, wound care specialist services.				
	24 (75)	25 (78.1)	28 (87.5)	24 (75)	12 (38.7)
WC 26	Patients should be given information about the following: compression hosiery, skin care, be discouraged from self treating with over the counter preparations, avoid trauma to their legs, refer themselves at the earliest signs of possible skin breakdown, be encouraged to remain mobile and take exercise, elevate the affected limb when immobile.				
	32 (100)	28 (87.5)	28 (87.5)	32 (100)	14 (45.2)
DIABETES					
DB 1	All diabetic patients under district nursing care should have a record of an individual care plan, reviewed at least annually.				
	30 (93.8)	27 (84.4)	31 (96.9)	31 (96.9)	11 (35.5)
DB 2	A member of the district nursing team has received recent (within the last two years) training in the management of diabetes.				
	29 (93.6)	28 (90.3)	27 (87.1)	30 (96.7)	17 (56.7)
DB 6	A structured assessment of patient self-monitoring skills, the quality and use made of the results obtained and the equipment used should be made at least annually.				
	26 (83.9)	23 (74.2)	21 (67.8)	25 (80.7)	16 (53.3)
DB 7	Clinical monitoring of blood glucose levels by high-precision DCCT-aligned methods of haemoglobin A1c should be performed at least every six months.				
	25 (83.3)	23 (74.2)	28 (90.3)	28 (90.4)	12 (40)
DB 12	District nurses caring for patients with diabetes should be able to recognise when hypoglycaemia becomes unusually problematic or of increased frequency (note: to be measured by episodes of unplanned contact with health services made due to hypoglycaemia).				
	32 (100)	31 (96.9)	30 (93.7)	32 (100)	10 (32.2)
DB 13	The patients blood pressure should have been measured and recorded within the last 12 months				

Number (percentage) of DN team leaders answering agree/strongly agree					
Indicator	Improve health	Improve satisfaction	Under DN control	High quality care	Variation in practice
	31 (96.8)	29 (90.6)	29 (90.6)	30 (93.8)	11 (35.5)
DB 21	Patients with one or more risk factors for foot ulceration should be referred to a podiatrist (or patient refusal recorded).				
	30 (93.8)	30 (93.8)	28 (87.6)	30 (93.8)	11 (38.7)
DB 20	All diabetic patients should be referred annually for an eye check by an ophthalmic optician (or patient refusal recorded)				
	31 (96.8)	27 (84.4)	26 (81.2)	29 (93.6)	11 (35.5)
END OF LIFE CARE					
EL 1	There is a record that a structured assessment has been conducted within 3 months of the date of referral.				
	30 (96.7)	29 (93.5)	30 (96.7)	30 (96.7)	13 (43.3)
EL 3	A member of the district nursing team has received training in end of life care.				
	32 (100)	32 (100)	28 (87.6)	32 (100)	14 (45.2)
EL 5	A member of the district nursing team attends regular (at least three monthly) multidisciplinary team meetings.				
	29 (90.7)	31 (84.4)	22 (68.7)	28 (87.5)	13 (41.9)
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 (+ code) • GP name • Problems/concerns • Anticipated needs • Information given/carer issues • DS 1500 date • CNS • Hospice/SPC • OOH handover form date sent • Preferred place of care stated + date				
	31 (96.9)	30 (93.7)	27 (84.4)	30 (93.8)	18 (58.1)
EL 20	District nursing teams can produce on request a register of all patients currently with a syringe driver				
	24 (75)	21 (65.6)	29 (90.6)	26 (81.3)	12 (38.7)
EL 12	Newly requested syringe drivers should be set up within four hours of the request				
	31 (96.9)	32 (100)	29 (90.6)	32 (100)	12 (38.7)
EL 21	When a newly requested syringe driver is set up, out of hours services should be notified of this within twelve hours				
	32 (100)	32 (100)	31 (96.8)	32 (100)	11 (35.5)
EL 19	Carers who are looking after patients should have been offered information and advice on practical issues where needed, such as manual handling, managing distressing symptoms and dealing with incontinence and other body fluids.				
	32 (100)	32 (100)	32 (100)	32 (100)	10 (33.3)

Appendix 5 Patient perspectives on elements of good care in district nursing

Element of good quality care	Source for this element	Sample question	Sample answer	Source	Links w/ SPACE model #
Overall	Former Director of Nursing on podcast on quality	Would you recommend this service to your family and friends? Overall, how would you rate the standard of service provided by the district nurse?	Absolutely/ Yes/ Not sure/ Definitely not Excellent/ Very good/ Good/ Fair/ Poor/ Can't say	Dr. Foster Picker Institute	No
Flexibility	Paper on users' views of quality homecare ¹	If you needed to see the district nurse at short notice, could this usually be arranged?	Yes always/ Yes sometimes/ No/ I have not tried to do this/ Can't say	Picker Institute	Yes – P for personal needs met
Listening and communication	Interviews with Bristol PCT Health Interest Group	Did the district nurse listen carefully to what you had to say? Did the district nurse give you enough time to ask questions and/ or discuss your health issues? If you had questions to ask the district nurse, did you get answers that you could understand?	Yes/ yes to some extent/ No/ Can't say Yes/ yes to some extent/ No/ I did not need to discuss anything or ask questions Yes definitely/ yes to some extent/ No	Picker Institute Picker Institute Picker Institute	Yes – S for shared decision making (comm)

¹ Francis and Netten (2004) Raising the Quality of Home Care: A Study of Service Users' Views. *Social Policy and Administration*. 38; 3: 290-305.

Element of good quality care	Source for this element	Sample question	Sample answer	Source	Links w/ SPACE model
Co-ordination of care*	Interviews with Bristol PCT Health Interest Group	Was the co-ordination of care between district nurses and other services good (e.g. social services, out of hours, specialist nurses)? Were you able to get hold of a healthcare professional between the hours of 5-7 am and 5-7 pm when you needed to?	Yes definitely/ Yes to some extent/ No/ I did not need more than one service/ Not sure or not applicable Yes definitely/ Yes to some extent/ No/ I did not need them at these times/ Not sure or not applicable	Lesley Wye Lesley Wye	Yes – C confidence in bridge between services
Care*	Interviews with Bristol PCT Health Interest Group Paper on users' views of quality homecare	Do you feel that the nurses cared about your welfare? Were the nurses kind to you and your carers?	Yes definitely/ Yes to some extent/ No/ Not sure or not applicable Yes definitely/ Yes to some extent/ No/ Not sure or not applicable	Lesley Wye Lesley Wye	Yes – P for personal needs met
Patient empowerment	Focus groups with community service heads	Do you feel that nurses included you in their discussions about your care rather than talk over you? Were you involved as much as you wanted to be in decisions about your care and treatment?	Always/ Most of the time/ Sometimes/ Seldom Yes definitely/ Yes to some extent/ No/ I did not need to decide anything/ Not sure NA	Dr. Foster Picker Institute	Yes – S for shared decision making

Element of good quality care	Source for this element	Sample question	Sample answer	Source	Links w/ SPACE model
Respect*	Interviews with Bristol PCT Health Interest Group Paper on users' views of quality homecare	Are you treated with respect by the nurses? Did the district nurse treat you with respect and dignity?	Always/ Most of the time/ Sometimes/ Seldom Yes all of the time/ Yes some of the time/ No	Dr. Foster	Yes – P for personal needs met
Reliability	Paper on users' views of quality homecare	Were you informed about any delays?	No delays/ Yes/ No	Dr. Foster	Possibly – S for shared decision making (communication)
Attitude	Interviews with Bristol PCT Health Interest Group Paper on users' views of quality homecare	Are the nursing staff friendly, courteous and approachable when you need help?	Always/ Most of the time/ Sometimes/ seldom	Dr. Foster	Yes – P for personal needs met

Element of good quality care	Source for this element	Sample question	Sample answer	Source	Links w/ SPACE model
Carers	Interviews with Bristol PCT Health Interest Group	How would you rate the way members of staff treated you and your family? Did the district nurse involve your family and friends when making plans for your care and treatment?	Excellent/ Good/ Satisfactory/ Unsatisfactory Yes, definitely/ yes to some extent/ No/ Not sure or not applicable	Dr. Foster Picker Institute	No
Responsiveness	Interviews with Bristol PCT Health Interest Group	If you phoned the district nurse, were you able to get through or leave a message? If you have left a message for the district nurse, did you get a response?	Yes most or all of the time/ Sometimes/ Not often or hardly ever or never/ I have not tried to phone/ I do not have the name and telephone number of the district nurse Yes most or all of the time/ Sometimes/ Not often or hardly ever or never/ I have never had to leave a message	Picker Institute Picker Institute	Yes – C for confidence in bridge between services
Continuity of care	Interviews with Bristol PCT Health Interest Group Paper on users' views of homecare	Did you feel that the district nurse had all the necessary background information about you and your health needs?	Yes completely/ Yes to some extent/ No/ Not applicable	Picker Institute	No

Element of good quality care	Source for this element	Sample question	Sample answer	Source	Links w/ SPACE model
Knowledge and skills	Paper on users' views of quality homecare	Did you find the staff to be knowledgeable and competent?	Yes/ No	Dr. Foster	No
		Did you feel that the district nurse knew enough about your condition and treatment?	Yes completely/ Yes to some extent/ No/ Not applicable	Picker Institute	
Equipment	Picker Institute questionnaire	Did the district nurse ensure that you had all the equipment or dressings you required?	Yes completely/ yes to some extent/ No/ Not applicable	Picker Institute	No
Information	Picker Institute questionnaire	Did the district nurse provide you with any health advice or information about your condition?	Yes/ No/ I declined to receive further information/ Can't say	Picker Institute	Possibly – S for shared decision making (communication);
		How helpful was the advice and/or information provided by the district nurse?	Very helpful/ somewhat helpful/ Not very helpful/ Can't say	Picker Institute	
		Did the district nurse provide information (verbally or written) about relevant community services you might need?	Yes/ Some but not enough/ No but I would have liked this type of information/ Can't say	Picker Institute	

SPACE model devised by Kathryn Hall at NHS Bristol to apply to patient experience across secondary, primary & community care sectors.

* Topic areas indicate of key importance stressed repeatedly in interviews with local Bristol service users.

Appendix 6 Patient derived outcome tools

Patient derived outcome tools are increasingly being used to assess the impact of care on outcomes that are identified by service users themselves. These outcomes may be related to health status (e.g. heal my wound), quality of life (e.g. sleep better at night) or personal (e.g. attend my daughter's wedding in July) and are derived in partnership with the caregiver. We found two potential tools: MYMOP and Goal attainment scaling.

MYMOP

MYMOP stands for Measure your medical outcome profile and was devised by Charlotte Paterson, now at Peninsula University. It has been used for physiotherapy, mental health and complementary therapy services. The service user identifies the main problem that is 'bothering' him or her and rates it on a scale of 0 to 6. A secondary problem is also identified and rated, as well as an activity that is affected by those problems. The service user also rates his or her overall well being. The tool can be re-administered at any further point in time, for example at the next visit, three months hence or when care terminates. For more information about MYMOP, including sample questionnaires and sample database for data collection and analysis, see www.peninsula.ac.uk/mymop.

Goal attainment scaling

From: Lynne Turner-Stokes Goal attainment scaling in rehabilitation *Clinical Rehabilitation* (2009); 23; 362-370.

Goal attainment scaling (sometimes abbreviated to 'GAS'), is a method of scoring the extent to which patient's individual goals are achieved in the course of intervention. In effect, each patient has their own outcome measure, but this is scored in a standardized way as to allow statistical analysis....

An important feature of goal attainment scaling is the establishment of criteria for a 'successful' outcome for that individual, which are agreed with the patient and family before intervention starts so that everyone has a realistic expectation of what is likely to be achieved, and agrees that this would be worth striving for. Each goal is rated on a 5-point scale, with the degree of attainment captured for each goal area. If the patient achieves the expected level, this is scored at 0. If they achieve more than the expected outcome, this is scored at: +1 (somewhat more) +2 (much more). If they achieve less than the expected outcome this is scored at: -1 (somewhat less) or -2 (much less)...

The method allows one to set as many or as few goals as wished, and still gives a single numerical outcome. However, goal setting can be time-consuming and, in our experience, three to five goals usually represent a feasible number to capture the patient's key priorities...

In effect, therefore, the composite goal score (the sum of the attainment levels x the relative weights for each goal) is transformed into a standardized measure or T-score with a mean of 50 and standard deviation of 10. If goals are set in an unbiased fashion so that results exceed and fall short of expectations in roughly equal proportions, over a sufficiently large number of patients, one would expect a normal distribution of scores. Demonstrating that the mean goal attainment T-score for the study population is around 50 is a useful quality check of the team's ability to set and negotiate achievable goals. If a team attempts to inflate their results by setting goals over-cautiously, the mean score will be >50 . Similarly, if they are consistently overambitious it will be <50 .

Appendix 7 Bristol district nursing patient survey (unpiloted)

<i>Background</i>	1. How often does the district nurse visit you?
	<p style="text-align: right;">Weekly or more often <input type="checkbox"/></p> <p style="text-align: right;">Fortnightly <input type="checkbox"/></p> <p style="text-align: right;">Once every three weeks <input type="checkbox"/></p> <p style="text-align: right;">Once a month <input type="checkbox"/></p> <p style="text-align: right;">Once every two months <input type="checkbox"/></p> <p style="text-align: right;">Once every three months or less <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p><i>Comment</i></p>
	2. What is the main reason that the nurse comes to see you?
	<i>Specify:</i>
<i>Continuity of care</i>	3. Did you feel the district nurse had all the necessary background information about you and your health needs?
	<p style="text-align: right;">Yes completely <input type="checkbox"/></p> <p style="text-align: right;">Yes to some extent <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p><i>Comment</i></p>
<i>Equipment</i>	4. Did the district nurse ensure you had all the equipment or dressings you needed? (include medication check)
	<p style="text-align: right;">Yes <input type="checkbox"/></p> <p style="text-align: right;">Yes to some extent <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">Not sure/not applicable <input type="checkbox"/></p> <p><i>Comment</i></p>
<i>Knowledge /skills</i>	5. * (When the DN last visited) did you feel the district nurse was knowledgeable and competent?
	<p style="text-align: right;">Yes completely <input type="checkbox"/></p> <p style="text-align: right;">Yes to some extent <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p><i>Comment</i></p>

<i>Information giving</i>	6. Did the district nurse provide you with any health advice or information about your condition? (specify the condition the patient has said is the main reason for visiting)
	<p style="text-align: right;">Yes <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p style="text-align: right;">I didn't want to receive further information <input type="checkbox"/></p> <p><i>Comment</i></p>
<i>Communication & empowerment</i>	7. Were you (and your family?) involved as much as you (and they) wanted to be in decisions about your care and treatment?
	<p style="text-align: right;">Yes definitely <input type="checkbox"/></p> <p style="text-align: right;">Yes to some extent <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">I did not need to decide anything <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p><i>Comment</i></p>
<i>Humanity</i>	8. Did your district nurse treat you with respect and dignity?
	<p style="text-align: right;">Yes all of the time <input type="checkbox"/></p> <p style="text-align: right;">Yes some of the time <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p><i>Comment</i></p>
<i>Responsiveness</i>	9. Were you able to get hold of a district nurse when you needed, including outside of normal working hours?
	<p style="text-align: right;">Yes all of the time <input type="checkbox"/></p> <p style="text-align: right;">Yes some of the time <input type="checkbox"/></p> <p style="text-align: right;">No <input type="checkbox"/></p> <p style="text-align: right;">Not sure <input type="checkbox"/></p> <p style="text-align: right;">I did not try to contact the district nurse <input type="checkbox"/></p> <p><i>Comment</i></p>

<p><i>Global satisfaction</i></p>	<p>10. Overall how would you rate the standard of service provided by the district nurse?</p> <p style="text-align: right;"> Excellent <input type="checkbox"/> Very good <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> Not sure <input type="checkbox"/> </p> <p><i>Comment</i></p>
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Appendix 8 Documentation for meetings with commissioners and Bristol Community Health senior managers

Draft quality indicators for Bristol Community Health District Nursing Services 15 May 2009

The Primary Health Care Unit of the University of Bristol was commissioned by Deborah Lee, Director of Commissioning at Bristol Primary Care Trust, to develop a framework for designing quality indicators for community services. The aim was to help community staff identify the contribution they make to health care and increase their ability to measure and assess those contributions. After preliminary consultation with Bristol Community Health staff, commissioners and service users, we decided to use district nursing services as a 'test case'.

We are developing indicators in three domains: organisational (e.g. registers, staff training, record-keeping), clinical (diabetes, wound care, end of life) and patient experience. Please find below a list of draft indicators that are currently under consultation by district nurses, Bristol PCT commissioners, Bristol Community Health management team and service users. These indicators have been identified and adopted from several sources including NICE guidelines, Department of Health strategy papers and Royal College of Nursing guidelines. At the end of this process, we would like to have a limited list of indicators (i.e. 10-15) that reflect the goals of district nursing in three clinical areas that reflect the majority of their caseload or processes that deliver those goals. The complete list of indicators will need to be broad enough to capture the scope of district nursing, and each individual indicator should be an important, useful and strong measure of quality in its own right. At this stage, we are aware that the indicators are not currently measurable; this stage is yet to place after we have a sense from the key stakeholders whether in general the indicators is a potential measure of quality.

Could you please read the following list and:

- 1) For each indicator, please think through whether you think the indicator is an important, useful and strong measure of quality. Also, please consider whether the indicator would help redress inequalities and in what ways implementation of the indicator could lead to perverse incentives or gaming. Then decide whether you would advise us to further develop (keep) or drop the indicator (delete), or whether you are not sure. A comment box is provided.
- 2) After reading the entire list, could you think through:
 - a. is this list comprehensive enough to reflect the breadth of good quality district nursing care?
 - b. if a district nursing service scored highly on these indicators, would it be valid to say that the service was offering high quality care?
 - b. are these indicators challenging, yet achievable?

c. do these indicators provide adequate ‘actionable information’ to guide Bristol Community Health managers and commissioners in their decision-making about district nursing?

To help inform further development of these indicators, we would like to take away a copy of your responses to this document.

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
ORGANISATIONAL					
1	Each DN team should be able to produce on request a register of all patients currently on the caseload and the main reasons for their involvement.				
2	All patients should have a documented holistic assessment carried out within three weeks of the date of the first DN visit.				
DIABETES					
3	All diabetic patients under district nursing care should have a record of an individual care plan, reviewed at least annually.				
4	A member of the district nursing team has received recent training in the management of diabetes.				

5	A structured assessment of self-monitoring skills, the quality and use made of the results obtained and the equipment used should be made at least annually (diabetes).				
6	Clinical monitoring of blood glucose levels by high-precision DCCT-aligned methods of haemoglobin A1c should be performed at least every six months.				
7	District nurses caring for patients with diabetes should be able to recognise when hypoglycaemia becomes unusually problematic or of increased frequency (note: to be measured by numbers of unplanned contact with health services made due to hypoglycaemia).				
8	Blood pressure should have been measured and recorded within the last 12 months.				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
9	Patients with one or more risk factors for foot ulceration should be referred to a podiatrist (or patient refusal recorded). Foot check – DN does this? Should only those at risk be referred onto the ‘foot protection team’ (who are they?). NICE type 2 Diabetes foot care guideline suggests that only those patients at an increased or high risk of foot problems should be referred.				
10	All diabetic patients should be referred annually for an eye check by an ophthalmic optician (or patient refusal recorded).				
11	There is a record that a structured assessment has been conducted within 3 months of the date of referral. Future develop of the indicator: “The assessment should include:				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
END OF LIFE CARE					
12	A member of the district nursing team has received training in end of life care. Need to define what we mean by training.				
13	<p>A member of the district nursing team attends regular (at least three monthly) multidisciplinary team meetings.</p> <p>Denominator = number of meetings held. Outcome = percentage attended Target = 90% attendance</p>				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
14	<p>The team has a complete register of all patients for whom they are providing end of life care. This register should include:</p> <ul style="list-style-type: none"> Name of carer Diagnosis (+ code) GP name Problems/concerns Anticipated needs Information given/carer issues DS 1500 date CNS Hospice/SPC OOH handover form date sent Preferred place of care stated + date <p>Denominator = no. of patients x no. of items Numerator = no. of cells completed</p>				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
15	DN teams can produce on request a register of all patients currently with a syringe driver.				
16	Newly requested syringe drivers Should be set up within four hours of the request. Out of ours service should be notified within 12 hours.				
17	Carers who are looking after patients should have been offered information and advice on practical issues where needed, such as manual handling, managing distressing symptoms and dealing with incontinence and other body fluids.				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
WOUND CARE					
18	All patients with pressure ulcers should have a documented initial or ongoing pressure ulcer assessment within the last month. Pressure Ulcer grade should be assessed using the EPUAP classification system.				
19	All pressure ulcers graded 2 and above should be documented as a local clinical incident.				
20	Dressings for pressure ulcers should be used in accordance with the Bristol PCT wound management formulary.				
21	All patients with a pressure ulcer who have been under DN care for at least 6 weeks should have a documented assessment of screening for arterial disease by Doppler measurement of ankle/brachial pressure index.				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
22	Staff doing screening for arterial disease by Doppler measurement should have been trained in the procedure.				
23	Each patient should have a formal record of ulcer size documented at first presentation and at least monthly thereafter.				
24	All patients with a leg ulcer should have a documented individual management plan updated within the last three months that includes pain assessment and relief, dressings procedures and therapy e.g. compression bandaging, mobility and leg elevation.				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
25	All patients with diagnosed uncomplicated venous ulcer (ABP > 0.6) should be treated with graduated multi-layer high compression systems (including short stretch regimens) with adequate padding. This should be recorded in the patient's care plan or a record of patient refusal.				
26	Patients for whom the District nurse has been providing wound care for over four months should be discussed with, or referred to, wound care specialist services.				

Number	Indicator	Important, useful, strong measure of quality? (Y/ N/ Not sure)	Address inequalities? (Y/ N/ not sure)	Keep, Delete, Not sure	Comments
27	Patients should be given information about the following: compression hosiery, skin care, be discouraged from self treating with over the counter preparations, avoid trauma to their legs, refer themselves at the earliest signs of possible skin breakdown, be encouraged to remain mobile and take exercise, elevate the affected limb when immobile.				
<p>PATIENT EXPERIENCE NB Specifically worded indicators have not been developed for this area yet. These are issues that have been raised by patients and/ or staff and further thought is needed as to how to interweave them into the indicator framework.</p>					
28	Transition points e.g. b/t DN and social services, b/t DN & OOH, b/t DN & other BCH services				
29	Kindness, compassion, respect				
30	Ways to access patient views e.g. surveys, qualitative interviews, Discovery interviews				

Appendix 9 Evidence searches for subsample of indicators

The following searches were run on Medline using Ovid SP in May 2009.

WC2 Pressure ulcer assessment

1. exp Pressure Ulcer/
2. decubitus ulcer*.mp.
3. bed sore*.mp.
4. pressure ulcer*.mp.
5. 1 or 2 or 3 or 4
6. Risk Assessment/cl, mt [Classification, Methods]
7. Nursing Assessment/cl, mt [Classification, Methods]
8. classification.mp.
9. classification system.mp.
10. Observer Variation/
11. 6 or 7 or 8 or 9 or 10
12. 5 and 11
13. limit 12 to english language

WC11 Doppler assessment

1. ankle brachial pressure index.mp.
2. Ankle Brachial Index/
3. ankle brachial pressure.mp.
4. ankle arm index.mp.
5. ankle arm pressure.mp.
6. Ultrasonography, Doppler, Pulsed/ or Ultrasonography, Doppler/
7. or/1-6
8. leg ulcer/
9. 7 and 8

WC 23 Referral to specialist wound care services

1. exp Pressure Ulcer/
2. decubitus ulcer*.mp.
3. bed sore*.mp.
4. pressure ulcer*.mp.
5. exp Leg Ulcer/
6. leg ulcer*.mp.
7. venous ulcer*.mp.
8. foot ulcer*.mp.
9. feet ulcer*.mp.
10. varicose ulcer*.mp.
11. stasis ulcer*.mp.
12. exp Wound Infection/
13. (surg* adj3 wound*).mp.
14. (surg* adj3 infection*).mp.
15. (chronic ulcer* adj5 skin).mp.
16. or/1-15
17. referral.mp.

18. specialist.mp.
19. Tissue Survival/
20. tissue viability.mp.
21. 17 or 18 or 19 or 20
22. 16 and 21
23. limit 22 to humans

WC 26 Patient Education

1. exp Leg Ulcer/
2. leg ulcer*.mp.
3. venous ulcer*.mp.
4. varicose ulcer*.mp.
5. stasis ulcer*.mp.
6. (chronic ulcer* adj5 skin).mp.
7. 1 or 2 or 3 or 4 or 5 or 6
8. Education/
9. Consumer Health Information/
10. exp Self Care/
11. exp Health Promotion/
12. exp Patient Compliance/
13. Patient Education as Topic/
14. exp Health Education/
15. Patient Participation/
16. (self adj6 (care or efficac\$ or manag\$ or monitor\$)).mp.
17. ((patient\$ or adult\$ or client\$ or participant\$ or individual\$) adj3 (educat\$ or instruct\$ or informat\$ or counsel\$ or teach\$ or empower\$)).mp.
18. 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17
19. 7 and 18
20. limit 19 to (english language and humans)

DB1 Diabetes and Blood pressure

1. controlled.ab
2. design.ab
3. evidence.ab
4. extraction.ab
5. "randomized controlled trials"/
6. meta-analysis.pt
7. review.pt
8. sources.ab
9. studies.ab
10. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
11. letter.pt
12. comment.pt
13. editorial.pt
14. 11 or 13 or 12
15. 10 NOT 14
16. exp *Diabetes Mellitus/

17. 16 and 15
18. Blood Pressure/
19. Hypertension/
20. 18 or 19
21. 17 and 20
22. limit 21 to (english language and humans and yr="2000 - 2009")

EL 19 Carer information

1. exp *Palliative Care/
2. exp *Terminal Care/
3. Advance Care Planning/
4. or/1-3
5. Caregivers/
6. ((family or spouse or home) adj6 care\$).mp.
7. information.mp.
8. education.mp.
9. 7 or 8
10. 5 or 6
11. 9 and 10
12. 4 and 11

Appendix 10 Voting results: June 2009 Advisory Group

ORGANISATIONAL INDICATORS

ORGANISATIONAL (4)		KEEP/DELETE/UNSURE
OG1	Each DN team should be able to produce on request a register of all patients currently on the caseload and the main reasons for their involvement (and frequency of visits?). Comments: Would expect this to be done. Might be more appropriate as a minimum standard contractually rather than linked to incentives. Need standardisation of recording and access.	KEEP
OG2	All patients should have a documented holistic assessment carried out within three weeks of the date of the first DN visit. Comments: Suggest modification to time frame – within three visits. Exclusion: pts who only have one DN visit.	KEEP
OG3	A member of the district nursing team has received recent training in the management of diabetes. Comments:	DELETE
OG4	A member of the district nursing team has received recent training in end of life care. Comments:	DELETE

CLINICAL INDICATORS

WOUND CARE PROCESS INDICATORS (8)		KEEP/DELETE/UNSURE
WC2	All patients with pressure ulcers should have a documented initial or ongoing pressure ulcer assessment within the last month. Pressure Ulcer grade should be assessed using the EPUAP classification system. Comments: Modify - 'Ongoing' needs to be replaced with something more tightly defined/measurable	KEEP
WC4	All* pressure ulcers graded 2 and above should be documented as a local clinical incident *preventable (clarification needed from TV nurses) Comments: Regularly used as an indicator of nursing. Consider as an outcome indicator.	DELETE
WC8	Dressings for pressure ulcers and venous leg ulcers should be used in accordance with the Bristol PCT wound management formulary.	KEEP

	Comments: Modify to Bristol Community Health wound management formulary.	
WC11	All patients with a leg ulcer who have been under DN care for at least 6 weeks should have a documented assessment of screening for arterial disease by Doppler measurement of ankle/brachial pressure index. Comments: modify - within 6 weeks.	KEEP
WC12	Each patient with a leg ulcer should have a formal record of ulcer size documented at first presentation and at least monthly intervals thereafter. Comments: Specify method of measurement? Wound care pathway says that DNs should trace and photograph wound. Suggestion for outcome indicator - assessment of colour, exudate, pain	KEEP
WC14	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 Comments: Need to define further pain measurement.	KEEP
WC23	Patients for whom the District nurse has been providing wound care for over four months should be discussed with, or referred to, wound care specialist services. *suggested that this only applies where the wound is deteriorating. Check with TV nurses. Comments: Four months seems arbitrary.	DELETE
WC26	Patients with venous leg ulcers should be given information about the following: compression hosiery, skin care, be discouraged from self treating with over the counter preparations, avoid trauma to their legs, refer themselves at the earliest signs of possible skin breakdown, be encouraged to remain mobile and take exercise, elevate the affected limb when immobile. Comments: Patient information should be part of the management plan. Should be a basic requirement rather than incentivised. Amalgamate into individual management plan indicator.	DELETE
WOUND CARE OUTCOME INDICATORS (3)		KEEP/DELETE/UNSURE
WC32	Length of time a wound takes to heal completely. OR Proportion of wounds healing within a set period. Comments: Many other factors besides than DN care will influence this outcome. Lots of variation in wound healing. Not all wounds heal completely.	DELETE
WC33	Recurrence rates Comments: Need to define how the recurrence occurred.	UNSURE
WC36	Rates of wound infection - signs and symptoms of clinical infection and changes in bacterial flora. Comments: Could create perverse incentive not to report wound infection. Could measure more objectively by doing a swab but not a good use of resources.	DELETE

DIABETES PROCESS INDICATORS (4)		KEEP/DELETE/UNSURE
DB1	All diabetic patients who are insulin dependent for whom the district nurses administer insulin should have a record of an individual care plan, reviewed at least annually. Comments:	KEEP
DB26	All diabetic patients who are insulin dependent for whom the district nurses administer insulin should have a formal review carried out at annually. This review should include • a structured assessment of self-monitoring skills, the quality and use made of the results obtained and the equipment used •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). Comments:	KEEP
DB7	Clinical monitoring of blood glucose levels by haemoglobin A1c should be performed at least every six months for all diabetic patients who are insulin dependent for whom the district nurses administer insulin.	KEEP
DB23	All diabetic patients who are insulin dependent for whom the district nurses administer insulin and their carers should be informed about any potential risks/and or complications of having a diabetes. Comments: Some patients may have had diabetes for years and therefore not need education. Education sometimes given by diabetes specialist nurse. Need to make indicator more specific e.g. give leaflet.	KEEP
DIABETES OUTCOME INDICATORS (4)		KEEP/DELETE/UNSURE
DB27	Unplanned contact with health services due to hypoglycaemia for diabetic patients who are insulin requiring for whom the district nurses administer insulin. Comments: DN could not reasonably be held accountable for this unless it happened within an hour or two of visit/insulin administration. Difficult to get this data. Rare event.	DELETE
DB28	Unplanned contact with health services due to hyperglycaemia for diabetic patients who are insulin requiring for whom the district nurses administer insulin. Comments: DN could not reasonably be held accountable for this unless it happened within an hour or two of visit/insulin administration. Difficult to get this data. Rare event.	DELETE
DB30	Glycaemic control, measured by HbA1c levels (percentage of patients < 7.5) Comments:	DELETE
DB31	Blood pressure measurement for diabetic patients who are insulin requiring for whom the district nurses administer insulin Comments: Needs modifying. Suggestion for indicator - three repeated BP measures outside of target, refer to a GP then record decision: status quo, change medication, review in future (this would be a process indicator rather than outcome).	KEEP

END OF LIFE CARE PROCESS INDICATORS (6)		KEEP/DELETE/UNSURE
EL1	There is a record that a structured assessment has been conducted within 3 months of the date of referral for end of life care patients. Comments: Consider modifying timeframe. Suggestion – 2 weeks.	KEEP
EL5	A member of the district nursing team attends regular (at least three monthly) multidisciplinary team meetings. Comments: Not all GPs have these meetings and/or invite the DN. Could just have a one-to-one meeting between DN and GP. Modify to record of discussion between GP and nurse on end of life care. At least monthly.	KEEP
EL7	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 (+ code) • GP name • Problems/concerns • Anticipated needs • Information given/carer issues • DS 1500 date • CNS • Hospice/SPC • OOH handover form date sent • Preferred place of care stated + date Comments: resource issues. Might be more appropriate as a minimum standard contractually rather than linked to incentives. Register needs to be available to all services involved in care.	KEEP
EL12	Newly requested syringe drivers should be set up within four hours of the request Comments: May be limited by availability of drugs/equipment. Suggested modification – where anticipatory prescribing has been achieved.	KEEP
EL19	Carers who are looking after patients should have been offered information and advice on practical issues where needed, such as manual handling, managing distressing symptoms and dealing with incontinence and other body fluids. Comments: Needs to be more tightly specified.	KEEP
EL21	When a newly requested syringe driver is set up, out of hours services should be notified of this by end of shift. Comments: specify out of hours DNs	KEEP
END OF LIFE CARE OUTCOME INDICATORS (3)		KEEP/DELETE/UNSURE
EL22	Death at preferred place Comments: exception reporting last minute changes	KEEP
EL25	Comfortable, pain free death OR quality of life Comments: Look for validated QoL scale.	KEEP
EL26	Carers felt supported Comments: Look for validated tool.	KEEP

Advisory Group

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Janet Huckle, Professional Lead for District Nursing, Bristol Community Health

Pete Husband, Service User

Deborah Lee, Director of Commissioning, NHS Bristol (July – December 2008)

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