The District Nursing Workforce Planning Project

Literature Review
About the QNI

The QNI is a charity dedicated to improving patient care by supporting nurses who work in the community.

Every year, millions of people of all ages need professional nursing care at home. People today live longer, often with complicated health conditions, and are discharged earlier from hospital. Those patients can make a better recovery, stay independent and avoid unnecessary hospital re-admissions, if they have the support of skilled community nurses. Good nursing is something that can and should be available close to home.

Our aim is to ensure that patients receive high quality nursing care where and when they need it, from the right nurse, with the right skills.

How do we do this?

- Developing an ever-growing cohort of great nursing leaders - Queen's Nurses - who are committed to high standards of care in the community, and who can influence healthcare locally and nationally
- By funding nurses’ own ideas to improve patient care and helping them develop their skills through workshops, conferences and resources
- By lobbying Government, policy makers, and health service planners, and campaigning for resources and investment in high quality community nursing services

Acknowledgements

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1.0 Executive Summary

The District Nursing service in England forms an important part of the National Health Service (NHS) reforms, which seek to increase the number of people who are cared for in or as close to their home as possible (Health and Social Care Act, 2012; Spilsbury et al, 2013). District Nursing services must have sufficient nurses with the appropriate skills and knowledge and be able to use this human resource effectively to meet demand (Department of Health, 2013). The services must also have mechanisms in place to report explicitly the way in which demand is met and how they ensure equitable access to a quality service (Department of Health, 2013).

This report, commissioned by The Queen’s Nursing Institute as part of its District Nursing workforce planning project, presents a review of the literature relating to the following two questions:

1. What is the evidence that supports workforce planning within the District Nursing Service?
2. What are the ways in which patients are allocated within the District Nursing service?

A critical search of the literature provided 14 papers for review.

Effective patient allocation requires an understanding of the time required for care delivery, patient needs, available nursing time and the level of patient acuity.

The absence of workforce planning in District Nursing services may lead to:

1. ‘Silo working’ and an inability to manage workload fluctuations across the service
2. Inability to influence demand and predict service activity
3. Inability to identify situations when demand exceeds supply (of nursing time).
4. Inconsistent workload demand across the service
5. Inappropriate use of staff skills resulting in inefficient care provision.

Different approaches exist for workforce planning and patient allocation in the District Nursing service. Contemporary approaches in many organisations continue to concentrate on individual teams. However, new approaches are emerging and have been implemented in organisations with the increasing use of Information and Communications Technology (ICT).

Future approaches will benefit from appropriately resourced ICT and precise articulation of requirements, so that the design and content remains contemporary over time. It is important to ensure that approaches are fully automated in terms of data entry, analysis and reporting.

It is also imperative that future designs ensure the District Nursing service is ‘data wise’ as well as data rich. This will be achieved with the inclusion of structures that ensure all data have the potential to inform management decisions, for example through the design and use of key performance indicators and appropriate management information.

2.0 Introduction

The District Nursing service in England is an important part of the National Health Service (NHS) reforms which seek to increase the number of people who are cared for in or as close to their home as possible (Health and Social Care Act, 2012; Spilsbury et al, 2013). The requirement to avoid unnecessary hospital admission, facilitate timely discharge from hospital and to meet the needs of an ageing population with an increasing prevalence of chronic disease has never been higher (Department of Health, 2011). It is imperative that District Nursing services not only have sufficient nurses with the appropriate skills and knowledge but that they also use staff resources effectively to meet this dynamic agenda (Department of Health, 2013). District Nursing services must therefore have mechanisms in place to enable explicit reporting of the ways
in which they are not only meeting demand, but also how they continue to ensure that they provide equitable access to a quality service (Department of Health, 2013).

Historically, the perception of the District Nursing service is that it has cared for older people who are unable to leave their home to seek health/nursing care. Care provision and delivery has been the focus of service design at the expense of the need to plan, forecast and analyse the impact of interventions. Traditionally the District Nursing service has relied on the clinical skills, knowledge and discretion of the qualified District Nurse, who is a registered nurse with the additional Specialist Practitioner Qualification (District Nursing), to prepare him or her to work independently in community settings. The need for the District Nurse to attain sophisticated skills in management and business acumen has not previously been required (Department of Health, 2011, 2013). However, the advent of the NHS Quality Agenda means that the District Nursing service must demonstrate that it is cost effective, creates a positive patient experience and does no harm to those receiving it (Health and Social Care Act, 2012).

The need to develop tools to collate, assess and analyse workload, and report the use of resources and subsequent outcomes, is receiving greater recognition at strategic as well as operational level, both nationally and locally within health and social care organisations (Department of Health, 2013). This move is set to create primary/community health care environments in which District Nursing services are able to work smarter - with the help of information and communications technology (ICT) - to maximise the use of available resources and ensure equity of care provision (Bryar et al, 2012).

The Queen’s Nursing Institute and NHS England, as part of the Community Nursing Strategy Programme, are currently undertaking a review of workforce planning tools in community settings. This report has been commissioned by The Queen’s Nursing Institute as part of its District Nursing workforce planning project. It will present a review of the literature relating to the following two questions:

1. What is the evidence that supports workforce planning within the District Nursing Service?
2. What are the ways in which patients are allocated within the District Nursing service?

2.1 The search strategy

A critical review of the literature relating to workforce planning and patient allocation practices in District Nursing services was undertaken with the aim of analysing the research/evidence. Filtering the results for the most relevant papers resulted in 14 papers that either described approaches to workforce planning or ways in which patient allocation decisions were made in District Nursing services.

A detailed search was undertaken which included the following databases; Academic Search Complete, Business Source Complete, CINAHL Plus with FullText, E-Journals, Health Policy Reference Centre, MEDLINE with Full Text, PsychInfo (via EBSCO). Additionally, a detailed search was also undertaken which included the following databases; Journals from Ovid, Embase 1974-2013 November 27, HMIC Health Management Information Consortium 1979 to October 2013, Ovid MEDLINE(R) 1946 TO November Week 3 2013, Ovid Nursing FullText Plus (via OVID SP).

The search strategy combined the concept of workload analysis and workforce planning (with synonyms) with District Nursing (with synonyms). Where supported, appropriate database headings/thesaurus terms were also used. No date or language restrictions were employed.

3.0 The evidence that supports workforce planning within the District Nursing service

3.1 The process and purpose of workforce planning

Workforce planning is the process that allows a series of correct actions to happen in order to deliver cost effective, quality services. It requires decisions to be made that ensure the right people with the right skills are in the right place at the right time. The literature search identified four such papers. Only three of these papers directly relate to workforce planning in the District Nursing services.

However, the fourth paper is included in this report because the programme described was implemented
countrywide across Scotland. This outcome will inform programmes for the District Nursing service in England and was achieved perhaps because of the provision of senior leadership from Government to field level (Lockhart, 2010).

A key message from the papers is that any programme of workforce planning must be consistently implemented and have a consistent language if it is to provide a mechanism for comparison across the District Nursing service.

The process of workforce planning is dependent on the style of caseload management adopted by the District Nurse as the team leader. It centres on the way in which this person deals with the caseload activity in terms of the referrals, admissions and discharges. It is also dependent on the way in which the District Nurse team leader reports and records activity and the impact of interventions. The papers state that the chosen approach is unique to the District Nurse team leader, which again limits the comparability and consistency of the information produced (Kane, 2008).

Kane (2008) describes a systematic process of workforce planning based on caseload analysis. The process analyses data relating to the demography of the caseload and the characteristics of the population served by the District Nursing service. The approach presented by Kane (2008) distinguishes between the working caseload and the total caseload. In doing so Kane (2008) acknowledges that each caseload will include a number of patients who receive care from the service at least once per month and others who require less frequent interventions.

The development of workforce planning processes in this study was inhibited, as the District Nursing teams did not fully engage with the process and failed to complete the required reporting process, because of the demands of the caseload. This is a common theme in such studies, because they necessitate active engagement from nurses who are also required to deliver the service. The literature also suggests that lack of engagement may be related to a fear of losing team members during times of reported low caseload activity.

Custom and practice have previously allowed disengagement to happen through failure to challenge. This disengagement is thought to be adopted by nurses who want to maintain the status quo. However, the literature states that strategies are being implemented to reduce the impact of such barriers (Lockhart, 2010). This may be a benefit of the research completed in Scotland, where senior level engagement and leadership meant that there was no option to opt out of the study (Lockhart, 2010).

Workforce planning is important because without it, several disabling features exist that reduce the efficient and effective delivery of the District Nursing service, as illustrated by the following features:

i. District Nursing teams work in ‘silos’ when meeting the needs of their caseloads. This severely reduces the ability of the service to manage fluctuations in workload.

ii. District Nursing teams find it impossible to predict the activity requirements of the caseload because of the inability to influence demand for the service.

iii. District Nursing teams find it impossible to identify situations when demand for the service exceeds supply (the availability of nursing time).

iv. District Nursing services fail to recognise when teams have insufficient staff to meet the demand.

v. District Nursing teams use staff skills inappropriately resulting in inefficient care provision. (Thomas et al 2006).

3.2 Contemporary workforce planning

The papers reviewed agree on three things. Firstly, they recognise that workforce decisions are often made on the basis of custom and practice for individual District Nursing teams, and are not planned using evidence about the number of people and the skill base required to meet the demand for the service (Thomas et al, 2006).
Secondly, the workload for the District Nursing service is inconsistently distributed, because it is invisible within individual teams, as custom and practice continue to allow teams to work independently of each other. Some teams are therefore overworked and others are underworked. This means that it is not possible to respond to variations in workload by redistributing nursing time to where it is most needed, which increases the risk of delivering a poor quality inefficient service (Kane, 2008).

Thirdly, the papers reviewed agree that it is important to understand the demand for the service, as well as the factors which drive demand. When designing approaches to workforce planning it is also important to understand the way in which the service responds to demand, because this will inform District Nursing services in the future (Kane 2008).

Successful workforce planning is reliant on:

i. The mechanisms for data entry
ii. The measurement of data
iii. The presentation of the data.

i. Mechanisms for data entry

The process for entering data is an important feature of workforce planning approaches. Managers must be confident that the information is accurate if they are to use it to make clinical decisions and changes to the workforce. The papers reviewed noted the difficulty in achieving this level of accuracy because the process relies on the honesty and accuracy of individual nurses who enter the data, in the absence of rules or definitions (Reid et al, 2008). The study by Kane (2008) sought to increase the objectivity and consistency of the information by ensuring that people unrelated to the caseload also entered the information. The validity and reliability of these data was further enhanced by the use of multiple data entry processes, so that the final data set was not reliant on a single source of information.

However, the papers reviewed also state that it can take up to two years to create an acceptable level of consistency in the process for data entry. This may limit confidence and willingness to invest in the workforce planning process because of a lack of trust in the data (Kane, 2008). Despite this, Kane (2008) showed that it is possible to achieve consistency and to make changes that have a lasting impact on the District Nursing service.

The papers consistently present situations in which there is a manual approach to data entry rather than an automated process. Kane (2008) describes the development and implementation of the eCAT tool for workforce planning in Northern Ireland. Despite using an electronic database to store and present the data within a series of templates, the entry and reporting process remains manual. The process described is also time consuming, i.e. caseload profiling, audit and analysis. However, the project advocates creating templates for data entry that can be used repeatedly over time. Therefore the first episode for data entry is time consuming, but the time required to enter the data reduces on each subsequent occasion as familiarity with the template increases.

ii. The measurement of data

The papers reviewed state that workforce planning processes must measure several metrics to show what is happening in the caseload. These metrics include:

i. The number of referrals
ii. The number of admissions
iii. The number of discharges
iv. The number and frequency of visits
v. The duration of visits.

Kane (2008)

The collection and analysis of these data in the Nursing and Midwifery Workload and Workforce Planning programme in Scotland resulted in a demonstrable increase in efficiency and productivity of nursing and
midwifery services there (Lockhart et al 2010). This illustrates the significance of these data to the workforce planning process.

iii. The presentation of the data

Reid (2008) states that information relating to workforce planning can be presented using one of four methods:

i. Professional judgement (subjective decision about the requirements for safe staffing levels). Custom and practice for workforce planning in District Nursing services has been undertaken to meet the requirements of single teams rather than the service. This results in systems which present data relating to individual teams rather than the service as a whole. Furthermore many of these systems present the data in terms of the numbers of patients and nurses. However, the papers reviewed state that workforce planning is more effective if data presented show the availability of total nursing time, the associated grade/skill mix across the service and the total demand for the service in terms of patient dependency, acuity and required skill base for care delivery. This method of presenting information would offer greater flexibility and sensitivity when responding to change.

ii. Population and health needs-based methods (presents information using the social determinants of health). The papers reviewed state that presenting data which links to the social determinants of health is helpful when considering workforce requirements of the caseload. Such data presentation is also vital when considering the public health impact of the District Nursing service because of the links to the Public Health Outcomes Framework and associated outcomes (Department of Health, 2012). This would provide comparison across the service as well as throughout England.

iii. Caseload analysis (presents information based on the needs of patients admitted to the case load).

iv. Dependency-acuity (presents information about patient dependency in terms of the need for nursing time as measured by the frequency and duration of interventions).

The papers reviewed are consistent in the message that information must be presented graphically. This makes it easier to see key messages at a glance and allows the data to be analysed in a timely manner, so that it is possible to quantify the quality of nursing care (Kane, 2008). These data would benefit from presentation within a dashboard to allow key data sets to be reported side by side and facilitate comparison. It also allows identification of variances in service provision and delivery which require urgent attention. Furthermore the measurement and comparison of impact of the service over time would be possible if parameters for required impact were presented as key performance indicators (KPIs). This system is commonly used at senior management levels within the NHS as well as clinical care areas in secondary care; however, its use is not commonly seen in the District Nursing service and was not evident in the retrieved papers for this report. This would however, meet the need for presenting data in graphical form.

4.0 Ways in which patients are allocated within the District Nursing service.

The allocation of patients is one element of the total workload of the District Nurse team leader within the District Nursing service. It should be considered alongside the aspects of leadership, management and care delivery. Historically the allocation of patients to members of the District Nursing team has been a subjective process, influenced by custom and practice. Patient allocation decisions are influenced by several related factors, including the number of registered nurses available, the number of clients to be seen and the geographical location of the consultation.

Conventional patient allocation is task orientated and considers patients in terms of their diagnosis or nursing need, for example the treatment of a leg ulcer, and the need for insulin injections. The advent of the quality and equity access agenda in the NHS makes it increasingly important to ensure that patient allocation considers the person rather than the diagnosis, so that people receive the District Nursing service they need and thus available resources are used in the most cost effective and efficient way possible.
4.1 Patient allocation

The literature illustrates that patient allocation in District Nursing services lacks a consistent, systematic approach on a national or local level. This negates the potential for comparison across the service in terms of practice, impact, efficiency and effectiveness (Thomas et al, 2006).

Eleven papers were selected during the literature search. Each paper considered patient allocation as a component of the District Nursing workload and/or management of the caseload. Several themes emerge from the literature including:

i. The importance of recording time used
ii. The importance of classifying patient need
iii. The importance of counting nurses’ activity
iv. The perceived level of patient acuity
v. The reliance on retrospective recording.

Nine of the eleven papers present the development and implementation of a tool to manage and allocate the workload in District Nursing services or equivalent (i.e. Public Health Nursing Service in Northern Ireland).

It is clear from the literature reviewed that these tools provide a mechanism for creating the much needed systematic approach to patient allocation. They also facilitate consistent practice with the inclusion of rules for engagement. However, the current context for development and implementation means that the tools are often designed in response to local need and implementation is retained within the host organisation. This again limits the potential to compare patient allocation practice and subsequent impact across England.

The literature illustrates that patient allocation comprises three consecutive stages:

i. The allocation process
ii. The allocation decision
iii. The report and recognition of impact.

i. The allocation process

Traditional patient allocation processes are manual and labour intensive. They involve the creation of a list on a daily basis which contains the names of nurses who are available to work alongside the names of patients needing to be seen. Every nurse in the team is provided with a list of people they must see each day. The nurses are required to record the details of their contact with each patient they have seen in order to report their daily activity.

This allocation process depends on the accuracy of the person allocating the work and is open to error, for example, names may be missed off the list or may be included when they do not need to be seen (Dean, 2013). It is also open to wide variation because the lack of a decision-making formula means it is open to individual interpretation. The literature states that allocation decisions are often made in a linear way in response to demand and without consideration of the nursing time available (supply). This creates a situation in which demand exceeds the supply of nursing time and individual teams struggle to cope because they are unable to manage the situation (Baldwin, 2006).

The characteristics of contemporary District Nursing caseloads include a large number of older people, with multiple diagnoses, polypharmacy and a myriad of psychosocial needs. The literature illustrates that organisations are moving away from using these manual, labour intensive and linear allocation processes and are seeking ICT solutions to create electronic automated processes (Byrne et al, 2006; 2007; Brady et al, 2008; Dean 2013; Thomas et al, 2006; Dean 2013). For example, the Community Client Need Classification System (CCNCS) model allows a prediction to be made about client need (dependency) (Byrne et al, 2006; 2007; Brady et al, 2008). This is important because research shows that higher levels of dependency require increasing levels of nursing time (Byrne, et al 2007). This model requires retrospective data entry and produces a report outlining the way in which the District Nursing team members have used their time over a defined period. It also provides an insight into the complexity of the patients within the caseload, because
it allows the allocation of a score to specific tasks and the recording of time taken to complete the tasks (Byrne et al, 2006).

A possible limiting factor with this and other retrospective data entry tools is the lack of accuracy, especially when entry requires precision. This is because inadequate time is allocated by many nurses to the data entry process (Baldwin, 2006; Thomas et al, 2006). However, this has been shown to resolve over time as nurses become more familiar with the tool (Thomas et al, 2006). Once an accurate data set is created, it becomes a useful aid for patient allocation because of the relationship it displays between time required for care delivery, the frequency of Nursing contacts and the perceived dependency of the patient.

The workload allocation tools currently available present a similar resource for patient allocation as the CCNCS tool. They require retrospective data entry and produce a report outlining nursing activity, and/or patient dependency and/or patient acuity (Byrne et al, 2006; Goldstone et al, 2000). The report produced by these tools allows for managerial decisions about the use of resources including time and staff because of the potential to analyse historical data. However, the analysis is again a manual process and requires a depth of understanding and ability to interpret the data.

ii. The allocation decision

The literature emphasises the importance of making patient allocation decisions using best available evidence. This is one of the drivers within in the Domiciliary Scheduling in the Community system (DominiC) designed for use by the District Nursing service in Stockport (Dean, 2013). This computer system collates prospective data which is entered at the point of referral. It uses these data to produce a daily schedule for each team and allocate an appropriately skilled nurse to undertake the activity. The development of this and similar systems is dependent on the creation of well-informed software design and requires significant engagement of District Nurses with the skills, knowledge and experience to articulate and justify the specification (Thomas et al, 2006). It also requires on-going engagement to inform the use and future development of the software and ensure that it continues to support contemporary District Nursing service delivery (Thomas et al, 2006).

The ability to allocate different types of work including direct patient care, indirect patient care and other role related activity is also an important factor influencing patient allocation decisions. This is considered within the Wiseman workload measure (Wiseman, 2010). It allows an estimation of the time needed to complete the activity within prescribed parameters and requires entry of the actual time taken to complete the activity. This promotes effective allocation decisions by considering the sufficiency of the total face-to-face contact (nursing) time available within the service. It is another retrospective data entry system which means that current decisions are made using past experiences.

However, the fact that this system incorporates a 2:1 ratio of direct: indirect care means that appropriate time is available for nurses to complete the required reporting process, which increases the potential for accurate data entry (Wiseman, 2010). Despite not being designed specifically for District Nursing services, this system has many features which increases its compatibility not least its use with community mental health services.

Systems that prescribe the proposed duration of the nursing intervention in line with the dependency of the client are also used by District Nursing services (Thomas et al, 2006). The West Hertfordshire Activity and Time Dependency Tool (WHATT) is a patient allocation system that measures actual time used by the District Nursing service, by requiring verification following care delivery. Patient allocation decisions about the duration of the activity are made in 15 minute units (Thomas, et al 2006). This is also the system outlined within the Warrington Tool (Baldwin, 2006).

It is not clear in the research how the 15 minute limit was decided. It is, however, expected that situations will occur in which there is a difference between the predicted and actual time and that this information is valuable when making future workload allocation decisions (Baldwin, 2006; Thomas et al, 2006).

However, these studies state that this is not always the case and nurses did not enter the actual time, but merely verified the prescribed time, even if this was incorrect (Baldwin, 2006). This may be a lack of understanding of the tool or may be related to nurses’ fear of reprimand if they have spent too much or too little time with the patient. It is therefore important to acknowledge the prescribed time as an indicator of
the time required, rather than the maximum time available. It is also imperative that changes are made over time once data analysis is complete.

iii. The report and recognition of impact

Traditionally, District Nursing services have concentrated on admission to the case load and subsequent care delivery. This is perhaps related to the historical demographic profile of the caseload. However, the emerging caseload profile within contemporary District Nursing services suggests that people may only need District Nursing care at specific periods and once this need is resolved, their care requirements may be met by other agencies, including social care (Health and Social Care Act, 2012).

This suggests that patient allocation systems must facilitate discharge from the District Nursing service once the need for nursing care in the home has subsided. Such patient allocation systems will need to be able to allocate patients to appropriately skilled nurses within a prescribed time period to complete a reassessment and to review the plan of care.

The model proposed by Bentley and Tite (2000) outlines the use of computer software, which enables the service to objectively measure the outcome of interventions delivered during care. This is important because it allows reporting of the impact of the care delivered. If done well, it also triggers action in a timely manner when care delivery is not having an impact. This system is however limited, in that it requires manual data entry and analysis. Nevertheless, it is an important addition to the available patient allocation systems, because it introduces the need to identify and act on the outcome and impact of care delivery.

5.0 Conclusion

The report has outlined the context for workforce planning and patient allocation in District Nursing services in the UK. It is clear from the papers reviewed that different approaches exist for both these elements of District Nursing service provision. Contemporary approaches in many organisations continue to concentrate on individual teams within the service. They are also inconsistent, non-systematic and subjective. However, new approaches are emerging with the increasing use of ICT which are systematic and illustrate a greater level of objectivity and consistency.

Disappointingly, these only operate in the organisations in which they have been developed. There is no evidence that one approach has ever been implemented in all of the District Nursing services across England. However, a single approach has been implemented in Scotland, through the workload and workforce planning programme (Lockhart, 2010).

Future approaches will benefit from appropriately resourced ICT and precise articulation of requirements so that the design and content remain contemporary over time. It is important to ensure approaches are fully automated in terms of data entry, analysis and reporting. This will ensure that the time required to gain accurate and appropriate information is not greater than the benefit received. This level of automation will negate the incidence of human error and will ensure that the data are trustworthy, available and accessible for analytical scrutiny over time.

It is also imperative that the design ensures that the District Nursing service in the future is ‘data wise’ as well as data rich. This will be achieved by the inclusion of structures to ensure that all data have the potential to inform management decisions, for example through the precise design of key performance indicators and appropriate management information.

6.0 References


Department of Health (2013) How to ensure the right people, with the right skills, are in the right place at the right time. Department of Health, London.


* The 14 papers that were reviewed.