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High Quality Care Metrics for Nursing

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National Nursing RESEARCH UNIT

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Foreword

Every nurse knows that patients have different needs from one another. They also know that the safety and quality of the care they give can make all the difference to patients and their families. Nurses draw on their knowledge and skills, but they also use experience, intuition and creativity to meet those needs. Whilst nurses need to believe in their own practice, they also need to know that they are delivering care competently in a way that matters most to those they care for. The effects of care need to be captured through measurement.

At a time when cases of poor quality care and lack of compassion have become the focus of media attention, now more than ever, nurses and their leaders need to advance the way they use measurement to best effect. Measuring the quality of care is central to providing an NHS that is more transparent, accountable and focused on improvement.

In practical terms, measurement can help to minimise the risk of a patient getting pressure ulcers or suffering a fall, it can help to reduce the chance of spreading healthcare associated infections, or help a patient to recover more quickly. Measurement can also help inform patients about their own progress, and provide the wider public with information about the impact of nursing care.

Whilst there has been considerable interest and some notable successes in systematically measuring the quality of care in the UK, further work is needed to consolidate and build on this. That is why I asked Peter Blythin to chair a Task and Finish group to consider how we measure the quality of nursing care in the NHS. This report supported the group's work by setting out current knowledge and experience on nursing metrics and identifying the key issues in developing metrics for the future.

This report draws together information about a wide-range of UK initiatives and international developments in the measurement of nursing quality and describes:

- current knowledge and issues about use of nursing metrics
- types of nursing metrics that are currently being used in the English NHS
- national and international trends in measurement of nursing
- the feasibility of a national set of key indicators of high quality nursing
- design and implementation of an infrastructure that enables national consistency and benchmarking between organisations

Care quality metrics, if developed and used in the right way, have the potential to support and improve nursing in all areas of care delivered through the National Health Service in England. So that nurses, wherever they work, do not just believe in what they are doing, but can know that they have made a positive difference to the patients. This report is another important step in enabling this process.

Jane Cummings
Chief Nursing Officer for England

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Summary

In April 2012 the Chief Nursing Officer Designate, Jane Cummings, requested the establishment of a Task and Finish Group to look at measuring the quality of nursing care in the National Health Service (NHS). To inform the work of the Group the National Nursing Research Unit (NNRU) at King's College London was asked to undertake a rapid appraisal (June-July 2012) of the evidence to date on nursing measures.

The overall purpose of the resulting High Quality Care Metrics for Nursing report is to bring together the evidence and theory in a useful way to inform recommendations that will be put forward by the Task and Finish Group. In particular it aims to:

- Review current knowledge and issues in defining and using nursing metrics as part of a national architecture for measuring the quality of healthcare that enables: accountability, quality improvement and transparency (the three dimensions identified in the NHS Outcomes Framework).
- Build on the 2008 National Nursing Research Unit report State of the Art Metrics (Griffiths et al. 2008) to further identify the nursing metrics that are currently in operation, and explore any major trends, both nationally and internationally.

The wider context of this work is a need to:

- Establish a (small) set of clearly defined key indicators of high quality nursing.
- Consider these alongside broader factors that underpin high quality healthcare.
- Align nursing metrics with 'what matters most' to patients in terms of their experiences.
- Demonstrate the broader contribution of nursing to high quality care.
- Design and implement an infrastructure that enables national consistency and benchmarking between organisations.

This report looks at UK initiatives and international developments in the measurement of nursing quality. Advances since our 2008 report include: more international healthcare systems using nursing metrics, the development of metrics for quality improvement and transparency in the UK, specialty-specific metrics (e.g. mental health nursing) and metrics in NHS accountability systems (e.g. clinical dashboards).

Key findings of this report are that:

- There are a number of widely recognised indicators of nursing care quality. These include:
  - Healthcare associated infection
  - Pressure ulcers
  - Falls
  - Drug administration errors
  - Patient complaints
- It is unclear the extent to which all of these are sensitive to variation in nursing quality but they are plausible and, as such, widely supported.
- There are numerous contextual variables that impact upon the quality of nursing care which can be regarded as wider structural indicators. These include:
  - Workforce e.g. staffing levels, skill mix, sickness absence
  - Staff experiences e.g. perception of the practice environment
  - Systems e.g. admissions, discharge, handover
- Many NHS trusts are measuring some or all of these indicators in a structured way at a local level, including the use of quality dashboards.
- There is considerable overlap between approaches to quality measurement but little standardisation of indicators.
- As a result, many current systems of measurement do not permit benchmarking between organisations at the ward/unit level.
- There is some degree of standardisation around specific nursing quality indicators for patient safety, including measures for falls and pressure sores (the NHS Safety Thermometer, and through the North West Transparency project).
- We do not have good risk adjustment for measures such as falls and pressure ulcers to ensure valid comparisons between organisations.
- Few if any UK systems appear to have the sophistication of the 'state of the art' represented by the United States and Canadian systems, although we have not been able to review them in depth here.

Lessons from international systems are that:

- Systems that collect patient level data can be risk adjusted, to ensure meaningful comparison across the system (i.e. benchmarking between matched comparators, or for specific specialties).
- Systems and infrastructure need to be put in place and tested to enable consistent definition, collection and interpretation of information.
- Commitment and investment is needed to develop and secure the required infrastructure
- It is essential to have sufficient resourcing including for example the right informatics systems, information technology and expertise in place.
- Professional learning networks specifically focusing on the contribution of nursing to achieving high quality care can support implementation.

Whilst there has been considerable interest and some notable successes in measuring nursing quality in the UK, further work is needed to:

- Coordinate a consistent and standardised approach to the collection, analysis, and interpretation of a core minimum dataset.
- Identify a wider range of metrics and indicators that relate to effective and compassionate care, not just safety.
- Develop metrics and systems that reflect the wider structural factors that underpin nursing quality, such as staffing, skill mix and staff experiences and link to other care quality metrics such as patient experience.
- Create or adapt local infrastructure (e.g. information systems and technologies) to minimise the burden of measurement on staff.
- Gain an informed understanding of what aspects of nursing quality are being measured by any new system, and what is not - or cannot - be measured (but is still important) and how this fits with the 'whole picture' of nursing quality.
- Explore the potential for patient level data to be risk adjusted, to ensure meaningful comparison across the system (i.e. benchmarking between matched comparators, or for specific specialties).
- Develop and secure support from national and regional leads for a national system of measurement and reporting before rolling-out any future measurement initiative to healthcare provider organisations.
- Support professional learning networks which focus on the contribution of nursing to achieving high quality care.

1. Introduction

In April 2012 the Chief Nursing Officer Designate, Jane Cummings, requested the establishment of a *Task and Finish Group*[1] to look at measuring the quality of nursing care in the National Health System (NHS). There is increasing need for the nursing profession to demonstrate its considerable impact in an open, transparent and clearly understood way.

The Task and Finish Group, chaired by Peter Blythin, Director of Nursing, National Quality Team, and with Project leadership from Michelle Mello, National Lead Energise for Excellence, had a twelve week reporting time, with a final report due by the end of July 2012. The group agreed underpinning principles were that measures need to be relevant, clear and build on what is already there (notably, Energise for Excellence and the NHS Change Model). The Group also felt strongly that measures need to focus on values and outcomes that are important to patients, carers and their families and that staff engagement is essential.

To inform the work of the Group the National Nursing Research Unit (NNRU) at King's College London were asked to undertake an appraisal of the evidence to date on nursing measures. The overall purpose of *High Quality Care Metrics for Nursing* is to bring together the evidence and issues in a useful way to inform recommendations that will be put forward by the Task and Finish Group. This rapid appraisal of the literature was undertaken over a six week period in June-July 2012.

2. Aim

The aim of this report is to bring together the evidence and theory to inform recommendations that will be put forward by the Task and Finish Group on measuring nursing quality in the English National Health Service to provide a clear steer for national development of nursing measurement.

In particular it aims to:

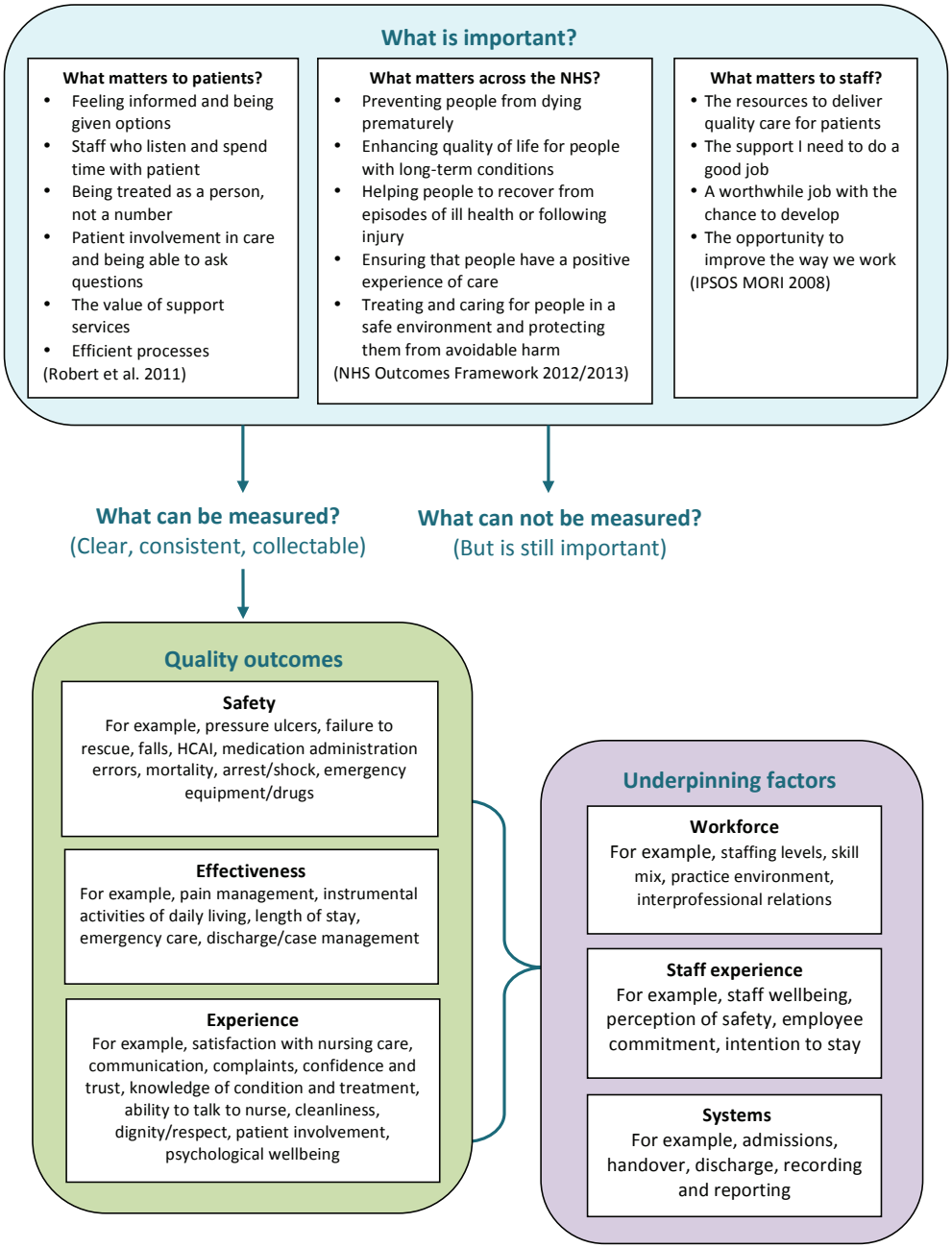
- Review current knowledge and issues in defining and using nursing metrics as part of a national architecture for measuring the quality of healthcare that enables: accountability, quality improvement and transparency (the three dimensions identified in the NHS Outcomes Framework).
- Build on the 2008 National Nursing Research Unit report *State of the Art Metrics* (Griffiths et al. 2008) to further identify the nursing metrics that are currently in operation, and explore any major trends, both nationally and internationally.

[1] Membership of the group is presented in the Appendix.

3. What is needed

This section draws on other more generic work on measurement in healthcare and builds on the findings of *State of the Art Metrics* to outline what is needed. Figure 1 brings these perspectives together in a broader conceptual framework.

Figure 1: Conceptual model



3.1 Establish a set of clearly defined key indicators of high quality nursing

The first driver is a need to generate evidence about the quality of nursing – first and foremost to assure standards are met and accountability structures are in place (Mooney 2009; Sunderland 2009). This requires well-defined indicators of nursing quality that are clear and can be consistently used to understand nursing quality. *High Care Quality for All* (DH 2008) offered a tripartite definition of quality - patient safety, patient experience and effectiveness of care. Measures could help to capture information on many aspects of quality, including: safety, effectiveness and patient experience (Blegen 2006, Foulkes 1987). Whilst in principle most nurses would agree they want to deliver safe, effective and compassionate care, it is harder to measure some aspects of quality than others (Bailey 2008).

Nevertheless the arguments for developing a set of generic indicators for nursing quality are strong. Most focus for nursing metrics to date has been on developing nursing minimal datasets with defined outcome measures and indicators. The nursing datasets that have been developed and applied in some countries have many features in common, but there are differences in purpose, content, sampling, collection approach, and developmental stage as well (Goossen et al. 1988).

What can be measured broadly falls into three categories: process, structure, outcomes (Donabedian 1988). However the nature of relationship is dynamic. Some process measures are adopted simply because of ease of measurement without real consideration of their validated relationship with outcomes (Griffiths et al. 2008).

Metrics that are most likely to be sensitive to differences in nursing input (e.g. healthcare associated infection, pressure ulcers, falls) are potentially good indicators of safety (Griffiths et al. 2008; Doran 2011) but risk adjustment to account for differences in underlying risk remains problematic. There are a number of associations between the failure to rescue indicators and presumed markers of quality, however it is not clear whether failure to rescue is a specifically nurse sensitive indicator and this requires further research (Jones et al. 2011).

Staff experience is a further potential area for drawing evidence about nursing quality. Recent research on staff wellbeing has established a link between staff motivation, affect and wellbeing and patient experiences of care (Maben et al. 2012). Staffing and skill mix are known to be linked to patient outcomes in acute and community care (Bostick et al. 2006), but applying these generically could create perverse incentives. Actual staffing rate relative to planned staffing is a potentially useful indicator to include. However there are also limitations to applying measures to different services, settings and patient groups. The arguments centre on the issue that nursing cannot be meaningfully evaluated

without considering the healthcare contexts that it is embedded within. Even where consistent measures can be applied there can be limitations to comparability due to geographical and demographic variations across the healthcare system and between service settings (Raleigh and Foot 2010). Measures, especially measures of outcome, generally need to be risk adjusted to enable comparison across settings.

Related to this issue is a question about the type of local improvement information that more specifically applies to different services, settings and patient groups. Extensive amounts of data are already collected in service setting. These can be used where possible, but there is a need to identify how data collection systems could be adapted to enable consistent data collection and increase indicator validity.

3.2 Consider key indicators of high quality nursing alongside broader factors that underpin high quality healthcare

Key indicators of nursing quality alone will not provide the whole picture on nursing quality (Doran 2003). There also needs to be data about the factors that underpin quality, including for example:

- Staffing levels: supernumerary staff, bank/agency staff, staff/patient ratios
- Skill mix: staff experience/knowledge/skills & expertise
- Sickness rates
- Vacancy rate/staff turnover
- Appraisal/induction
- Record of Continuous Professional Development/learning plan

There is also a need for information that reflects the quality of the workplace and the systems, leadership, teamwork and professional development in place to sustain quality (Laschinger and Leiter 2006). Research suggests that what matters to staff (IPSOS MORI 2008) is having: the resources to deliver quality care for patients, manager and colleague support, a worthwhile job with the chance to develop, the opportunity to make improvements to the way the team works.

Key indicators of staff experience are:

- Staff satisfaction and wellbeing
- Practice environment/perceived quality
- Perception of adequate staffing
- Interprofessional relations
- Staff intention to leave

3.3 Align nursing metrics with 'what matters most' to patients

Ensuring that people have a positive experience of care is a key domain of the Outcomes Framework and England led the world in commissioning a national survey of patients' experiences in 2001. The national survey data is valuable for monitoring purposes because it is based on randomly selected, representative populations; the questions are standardised; and it is possible to compare hospitals and track trends over time (Robert et al. 2012). However, at ward and service level there is evidence that clinical teams and middle management make little use of national patient survey data to monitor service quality and drive local quality improvement (Robert & Cornwell 2012).

Recent recommendations to the Department of Health on what matters to patients (Robert and Cornwell 2012) were based on research that identified six generic factors that patients want from their care (see 'What matters to patients?' [Robert et al. 2012] in Figure 1 above). In 2012, the Department of Health, through its National Quality Board, subsequently adopted a modified version of the Picker Institute Principles of Patient-Centred Care framework to provide a common evidence-based list of what matters to patients that can be better used to direct efforts to improve services. For example, it can be used to help define what questions to ask patients in surveys and in real time feedback. Other current national developments include the development and testing of an NHS-wide single indicator of patient experience - the Net Promoter Score (NPS), more commonly known as 'the friends and family test'. The standard Net Promoter question is *'How likely is it that you would recommend our service to a friend or colleague?'* and respondents indicate this likelihood on a 10-point rating scale. Further work is being undertaken to validate the choice of wording and scales for collecting data across the NHS (Graham and MacCormick 2012).

Whilst there is substantial literature on the use of clinical indicators and nursing metrics, there is less evidence relating to indicators that reflect important aspects of the patient experience beyond the functional and transactional aspects of their care. Public and professional concerns about loss of compassion and expressions of caring (Montalvo 2007) (relational aspects of care) may not easily be addressed by measures that only focus on clinical processes and outcomes. It is therefore important to more closely link nursing quality measurement to patient experiences of care, including for example, patients' experiences of: dignity, respect, information about treatment/medicines, comfort and cleanliness of ward environment, staff attitude and communication, involvement in decision-making and care planning (Bergh et al. 2011). In response to this need for better ways of capturing and understanding patient experiences of the relational aspects of their care, the 'Patient Experience of Emotional Care in Hospital' (PEECH) instrument was developed by Anne Williams and Linda Kristjanson (2009) in Australia using

Grounded Theory methods. Recent validation of the PEECH instrument in the UK (Maben et al. 2012) suggests that it can help to build understanding of the more complex interpersonal aspects of quality including compassion, empathy and responsiveness to personal needs, alongside transactional and functional aspects of care that are captured in the existing national patient survey programme.

Similarly, research by McCance et al. (2012) using a nominal group technique with nursing staff working at all grades in two health and social care trusts in Northern Ireland (n=50) and a regional consensus conference (n=80) identified eight top-ranked indicators as a core set for nursing and midwifery. The relevance and appropriateness of these indicators were confirmed with nurses and midwives working in a range of settings and from the perspective of service users. Whilst some of these indicators are addressed in the current National Patient Experience Survey, it does not always ask specifically about nursing and, as described elsewhere (Robert & Cornwell 2012), results cannot easily be attributed to the specific settings of nursing care delivery (e.g. wards or units) where the information was collected.

3.4 Demonstrate the broader contribution of nursing to high quality care

At the same time there is widespread recognition that nurses do not work in isolation and there is a need to generate transparent evidence of how nursing contributes to high quality care (Ham 2009) and health service performance (Aiken et al. 2012). The multitude of existing quality frameworks within the NHS makes it imperative to align nursing measurement with what is important, avoid duplication, and minimise the burden on staff. For example, *The NHS Constitution* provides an overall framework for NHS services based on pledges and rights; *National Service Frameworks* and strategies set clear quality requirements for care. *NICE* (National Institute for Health and Clinical Excellence) *Guidance and Quality Standards* set out markers of high-quality, cost-effective patient care, covering the treatment and prevention of different diseases and conditions. There are also governance and incentive frameworks such as *Monitor's Quality Governance Framework* for NHS foundation trusts; the *Quality Outcomes Framework* (QOF) for all general practice surgeries in England; and the *CQUIN* (Commissioning for Quality and Innovation) payment framework which sets out different goals for providers in different regions.

The NHS Outcomes Framework 2012/2013 has been designed as an overall framework for defining how the NHS will be accountable for outcomes. It sets out five domains, articulating the responsibilities of the NHS and 12 overarching indicators covering the broad aims of each domain. The five domains are:

- Domain 1: Preventing people from dying prematurely
- Domain 2: Enhancing quality of life for people with long-term conditions

- Domain 3: Helping people to recover from episodes of ill health or following injury
- Domain 4: Ensuring that people have a positive experience of care
- Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm

Nurses would expect to contribute to all five domains including public health and health promotion activities in domain 1; and significant aspects of care delivery to enhance and support quality of life and recovery in domains 2 and 3. Figure 2 as an example, illustrates how across these domains indicators of nursing quality can be directly related to: Domain 4: Ensuring that people have a positive experience of care, and Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm.

Figure 2: Alignment with the Outcomes Framework

TRANSPARENCY	ACCOUNTABILITY	QUALITY IMPROVEMENT
To provide a national level overview of how well the NHS (nursing) is performing, wherever possible in an international context	To provide an accountability mechanism between the Secretary of State for Health and the proposed NHS Commissioning Board	To act as a catalyst for driving quality improvement and outcome measurement throughout the NHS by encouraging a change in culture and behaviour, including a stronger focus on tackling health inequalities

NURSING QUALITY	NHS OUTCOMES FRAMEWORK		
	Domain	Overarching Indicators	Improvement Areas
Healthcare associated infection **Falls** **Pressure sores** **Drug administration**	**Domain 5:** Treating and caring for people in a safe environment and protecting them from avoidable harm	5a. Patient safety incidents reported 5b. Safety incidents involving severe harm or death	**Reducing the incidence of avoidable harm** Incidence of hospital-related venous thromboembolism (VTE) Incidence of healthcare associated infection (MRSA, C. difficile) Incidence of newly-acquired category 2, 3 and 4 pressure ulcers Incidence of medication errors causing serious harm **Delivering safe care to children in acute settings**
Patient experience	**Domain 4:** Ensuring that people have a positive experience of care	4a: Patient experience of primary care i) GP services ii) GP Out of Hours services iii) NHS Dental Services 4b: Patient experience of hospital care	**Improving people's experience of outpatient care** **Improving women and their families' experience of maternity services** **Improving the experience of care for people at the end of their lives** **Improving experience of healthcare for people with mental illness** **Improving children and young people's experience of healthcare**

3.5 Design and implement infrastructure that enables national consistency

The health service in England is increasingly being decentralised with local providers and commissioners having greater control over the types of services offered and the nature of that provision. This trend is exemplified through development of Foundation Trusts and 'Any Willing Provider', and the demise of the regional 'Strategic Health Authorities'. This has increased the need for transparency and prompted greater regulation, which is delivered primarily by the Care Quality Commission. Aside from the needs outlined above, perhaps the bigger need is to establish the infrastructure required to enable collection (with minimum administrative burden to clinical staff), analysis (at different levels) and reporting (both downward and upward, in a timely fashion) in such a way that metrics can meet the three overarching goals of accountability, transparency and service improvement.

The next section reviews recent international and UK progress in the development and use of nursing metrics.

4. Developments in nursing metrics

This review and our previous research on nursing metrics suggest that whilst the evidence base is wide ranging, work to develop metrics and systems for their use has been patchy. Most of the work undertaken has been in the acute sector. The existing evidence on nursing metrics can be categorised as follows:

- International systems using nursing metrics
- Metrics for quality improvement and transparency in the UK
- Specialty-specific metrics (e.g. mental health nursing)
- Metrics in NHS accountability systems (e.g. clinical dashboards)

Each of these is discussed in turn below.

4.1 International systems using nursing metrics

At the present time in the UK there is no centrally coordinated medical informatics endeavour which integrates measures of nursing quality with detail on individual patient outcomes and case mix adjustment or patient acuity. Work on nursing measures so far is dominated by indicators and research related to acute hospital care, primarily in North America. Internationally development of nursing minimum data sets (Gooseen et al. 1998), and systems such as the American Nurses Association *National Database of Nursing Quality Indicators (NDNQI)* and the *Californian Nursing Outcomes Collaboration (CalNOC)* offer promise for better integration of evidence at a systems level. Core issues that differentiate these systems from much of what has gone on in the UK are that they have clear protocols and specifications for data acquisition and reporting, and provide a suitable infrastructure for benchmarking.

The *National Database of Nursing Quality Indicators* is a national nursing database devised by the American Nurses Association (ANA) to provide quarterly and annual reporting of structure, process, and outcome indicators to evaluate nursing care at the unit level. NDNQI sets out nurse sensitive indicators for acute, paediatric, long-term care and psychiatric care settings. Indicators include:

- Pressure ulcer prevalence
- Patient falls, Patient falls with injury
- Nosocomial infections
- Urinary catheter-associated urinary tract infection
- Central line catheter associated blood stream infection
- Ventilator-associated pneumonia

- Paediatric pain
- Paediatric peripheral intravenous infiltration rate
- Assessment, Intervention, Reassessment (AIR) cycle
- Psychiatric physical/sexual assault rate
- Restraint prevalence
- Nursing hours per patient day
- RN education/certification
- RN satisfaction survey options
- Skill mix: percent of total nursing hours
- Voluntary nurse turnover
- Nurse vacancy rate

Information is collected at the unit level, enabling comparisons for quality improvement. NDNQI is risk stratified by unit type. This allows the potential to identify linkages between staffing and patient outcomes, nursing quality evaluation for improvements, and to inform *Magnet Recognition Program* (see Annex 1), and nurse retention and recruitment strategies. Linkages between nurse staffing levels and patient outcomes have already been demonstrated through the use of this database. Currently over 1100 facilities in the United States contribute to this database which can now be used to show the economic implications of various levels of nurse staffing.

The *Californian Nursing Outcomes Collaboration (CALNOC)* database development and repository project is the largest state-wide effort of its kind in the United States. It currently includes data on hospital nurse staffing, patient days, patient falls, pressure ulcer and restraint prevalence, registered nurse (RN) education, and patients' perceptions of satisfaction with care. CALNOC was the first US registry dedicated to nursing sensitive measures at the unit level. Hundreds of US hospitals have joined CALNOC to monitor and benchmark performance in adult acute care, critical care, medical and surgical care, paediatrics, post acute care and rehabilitation, emergency care, and child & maternal care.

- Structural measures are: Hours of nursing care per patient days, Skill mix, Percent contracted hours, Ratios, Voluntary turnover, RN characteristics (Education, Experience, and Years of Service), Unit rate of admissions, Discharges and transfers.
- Process measures are: Falls (assessment/reporting), Hospital acquired pressure ulcers, Medication administration, Accuracy safe practices, and PICC line insertion practices.

- Outcome measures are: Hospital acquired pressure ulcer by stage, Fall rate and Injury fall rates, Restraint prevalence rate, Central line-associated blood stream infections in PICC lines, Medication administration accuracy, nurse safe practices, finding and error rates.

In Canada, *Toward a National Report Card for Nursing* (see Annex 2) aims to create a shared vision and critical path for a national report card on nursing. The report card for nursing is envisioned as a selected minimum set of data on input, process and output indicators that can be collected nationally and benchmarked. A supporting synthesis of existing evidence identifies what is known about outcomes/performance monitoring initiatives in nursing, including specific indicators and reporting systems and what is known about the development, implementation and utilisation of nursing report cards. The synthesis shows that the majority of Nursing Minimum Data Sets (NMDS) focus on a core set of patient safety outcomes, such as pressure ulcers, falls, and nosocomial infections; while some take a broader perspective to include outcomes such as functional status, symptoms, and therapeutic self-care. Several NMDS have also included a work environment survey which enables an examination of the impact of work environment change on nurse and patient outcomes.

The *Health Outcomes for Better Information and Care project* (HOBIC) is based in Ontario, Canada. It originated with the Nursing and Health Outcomes Project which was established in 1999 funded by the Ontario Ministry of Health and Long-Term Care. Through successive phases of the program, a set of nursing sensitive patient outcomes was identified. To date collection of the outcomes has been successfully implemented in over 187 institutions across four health sectors: acute care, complex continuing care, home care, and long-term care. HOBIC involves the collection of outcomes data by nurses at the time patients are admitted to healthcare services and at discharge, using reliable and valid measurement tools. HOBIC consists of a set of generic outcomes relevant for adult populations, including indicators for: Functional status, Symptoms, Safety (pressure ulcers, falls) and Therapeutic self-care. *HOBIC* is distinctly different from other nursing measurement systems currently in operation as it is designed to have two threads:

(i) a central repository for researchers to access anonymous data at any time and

(ii) 'live' information which can be used by hospital nurses at the bedside to inform assessment, for example, of pain or skin integrity.

An added benefit of this system is that nurses can cross-check admission and discharge information for specific patients to assess patient outcomes following an episode of care. The system can also be used by nurse managers to compare the performance of different clinical units.

The *Canadian Health Outcomes for Better Information and Care (C-HOBIC)* project implemented the collection of standardised patient outcome data related to nursing care in Saskatchewan and Manitoba. C-HOBIC builds on the Ontario HOBIC (Health Outcomes for Better Information and Care) program to standardise the language concepts used by HOBIC; capture patient outcome data related to nursing care across four sectors of the health system; and store the data in relevant, secure format. C-HOBIC uses the four indicators areas developed in the HOBIC programme with the addition of 'patient satisfaction with nursing care'. In addition to providing real-time information to nurses about how patients are benefiting from care, the collection of nursing-related outcomes can provide valuable information to providers in understanding their organisation's performance related to outcomes including how well they are preparing patients for discharge.

4.2 Metrics for quality improvement and transparency in the UK

In recent years measurement of nursing quality in the UK has seen gradual progress with some standardisation around the measures that now appear in *The NHS Safety Thermometer*. The Safety Thermometer aims for 'harm free care' and specifically focuses on measurement of pressure ulcers, VTE prevention, falls, catheters and UTI (see Annex 1). A clear strength of the Safety Thermometer is the linkage to some level of individual patient data, which gives the potential for stratification and risk adjustment as well as improved benchmarking across care settings. However, the analytical work required to establish this link is lacking. For organisations using the Safety Thermometer, reporting remains, on the whole, at an organisation level, not the care delivery unit (ward). The challenge is to be able to 'drill down' into the data to demonstrate variation or change in quality in the short term at a local level.

Less is known about the use of nursing quality indicators when they are directly linked to quality improvement initiatives - such as the measures developed in the *North West Transparency Project (NWTP)* to reduce falls and pressure ulcers (see Annex 1) - although it appears there has been steady uptake of such initiatives across NHS providers as part of the Energise for Excellence framework. In the *NWTP* (involving eight NHS Acute Trusts) measures for falls are linked to National Patient Safety Agency guidance (moderate, severe, death) and measures of pressure ulcers are linked to European Pressure Ulcers Grading Scale (stages 2, 3 and 4). Reporting of either of these harms triggers an investigation into the level of nursing care that was delivered in the unit/ward concerned. These draw on risk assessment methods and root cause analysis to assess how improvements to care could be made, and patient and staff experience data are reviewed alongside. Reported benefits are: standardisation of the metrics enable comparison between Trusts and change to be monitored over time, service improvements to avoid risk of harm, and increased transparency and accountability (the results are available through websites).

Energise for Excellence (E4E) also identifies measurement as an essential tool in the process of change and helps to engage nurses in measurement activities (detail in Annex 1). Such initiatives help to call nurses to action, and help staff to see the value of measurement to inform practice development. Through focused initiatives, measurement can also help to target areas where nurses can make significant differences to quality of care or patient outcomes – for example *High Impact Actions for Nursing and Midwifery* (see Annex 1) seeks to improve nursing care in eight specific areas by spreading learning and good practice.

A further area of rapid development has been the measurement of nursing activity and time. This is a particular focus of the NHS Innovation and Improvement Productive Series, which includes *The Productive Ward: Releasing Time to Care™* and *Productive Community Services: Releasing Time to Care™* (see Annex 1). Initiatives that aim to drive up quality and improve productivity correspond with wider needs in health systems to achieve greater efficiency and lower costs. In this context, measurement of staffing (e.g. numbers of qualified nurses/healthcare assistants, patient/nurse ratios) and what nurses do (e.g. skill mix, activities) are likely to become more important dimensions of nursing quality management (Van den Heede et al. 2007; Reese 2010).

A common challenge associated with quality improvement initiatives is how to show quantifiable evidence of improvements that have been made (NHS Institute & NNRU 2010). Demonstrating impact is important for illustrating return on investment and encouraging support for continued implementation and future uptake of initiatives. Often organisations have not collected sufficient comparable 'pre' implementation information in order to make an assessment about impact. It can be difficult or burdensome to collect data alongside implementing an initiative; and staff (and patients) may feel it is detracting staff attention away from patient care. Having consistent benchmarks for nursing quality in place may help to avoid some of the problems of showing impact of specific quality improvement initiatives (Brown et al. 2010).

All of these initiatives have much in common but do not have a common data standard. Often these metrics are collected and collated outside other activities and do not benefit from NHS Trust data warehousing initiatives.

4.3 Specialty-specific metrics

Advances in measurement have also been driven from within specialties of nursing practice. For example the *Learning Disability Health Equalities Framework*, developed by the UK Learning Disability Consultant Nurse Network, has generated an initial indicator set (aligned with the Outcomes Framework) based around five determinants of health inequalities in learning disabilities, including: exposure to social determinants of poorer health, physical and mental health

problems associated with specific conditions, personal health behaviour and communication difficulties (see Annex 1 for full descriptions). Each determinant is broken down into five sets of indicators of impact with a scale ranging from 'no impact' through to 'major impact'. Work is currently underway to further develop the validity, reliability and sensitivity of the Framework and to scope its potential in a range of settings and with a range of stakeholders.

In community nursing, *Solihull Community Health Services Indicators* (Annex 1) are a well-defined set of indicators for assessing community health services. The Indicators cover nine areas: 1. Infection control and environment, 2. Privacy and dignity and professionalism, 3. Communication, 4. Core nursing assessments for patients in care, 5. Tissue viability, 6. Continence, 7. End of life indicators, 8. Diabetes indicator, and 9. IV Therapy indicators.

Mental Health Nurse Sensitive Metrics, being developed by the Mental Health and Learning Disability Nurse Directors' and Leads' (MHLDND) focus on in-patients at present but the ambition is to develop care metrics for the majority of care provided outside of hospital. The aim is to minimise administrative burden associated with collection of data by using existing patient information systems to draw data and to focus on positive actions such as reductions in the use of restraints, harm from falls, medication and administration recording errors (see detail of specific indicators in Annex 1).

Work internationally on other specialty-specific metrics for nursing includes:

- military hospital care (Patrician et al. 2010)
- children's hospital care (Curley and Hickey 2006)
- paediatric cardiovascular intensive care (Braudis et al. 2010)
- supportive neonatal intensive care (Coughlin et al. 2009)
- adult vascular surgery (Holt et al. 2010)
- ambulatory chemotherapy (Griffiths et al. 2011)
- long-term care settings (Doran et al 2006)
- nursing home care (Leibovici 2008)
- school nursing (Fahrenkrug 2003).

4.4 Metrics in NHS accountability systems

Advances in nursing quality measurement have been made at an organisational level to put in place accountability systems that enable Directors of Nursing to report to Boards and feedback to teams about performance and areas for improvement (Donaldson et al. 2005). Some approaches draw on a balanced scorecard approach

or an analytic hierarchy process (e.g. using a driver diagram) to link standards or objectives to measurement at organisation or department level (Chu et al. 2009). Nurse managers can use clinical quality indicators recorded during the care process to flag up areas for further investigation, such as high infection rates in specific wards, or to monitor the effectiveness of interventions (Casey et al. 2006). For example, using nursing quality indicators developed in the North West of England (see Annex 2). The nursing care indicators are designed to cover highest areas of risk: Patient observations, Pain management, Falls assessment, Tissue viability, Nutritional assessment, Continence assessment, Medication administration, Infection prevention and Control. Concurrently patient experience indicators aim to explore the patient's perspective of many of the above elements of care and in addition such issues as privacy and dignity and communication. Patient feedback is collected from general ward areas; asking a minimum of 15 patients ten questions based on the Care Quality Commission's Inpatient Survey.

Indicators and metrics included in *Imperial College Healthcare NHS Trust Quality Improvement Framework* (Gage et al. 2012) are: 1) Nurse sensitive outcome indicators: care bundle compliance (falls prevention, pressure ulcer prevention, food and nutrition, pain and failure to rescue), incidence and prevalence data relating to falls, pressure ulcers and catheter-acquired urinary tract infections. 2) Infection prevention and control: hand hygiene compliance, invasive devices care bundle compliance, cleaning scores, incidence data for trust acquired MRSA and C. Diff cases, MRSA screening rates. 3) Workforce: band and agency usage, sickness, vacancy and appraisal rates. 4) Patient experience: Commissioning for Quality and Innovation scores, complaints.

Another example of a hospital that has clearly set out an organisational strategy for nursing performance measurement is *Noble's Hospital Nursing/Midwifery Metrics* in the Isle of Man (detail in Annex 2). These Nursing and Midwifery Metrics which have been developed seek to enquire about the following three domains: patient safety and governance; the patient experience; and, the nursing/midwifery infrastructure underpinning the delivery of patient care. In order to do this, the metrics measure indicators such as: the presence of relevant risk assessments; identification and monitoring of risks to patients (including failure to rescue); patients knowing the names of the nursing and/or midwifery staff delivering care; patients feeling comfortable and safe in hospital; patients being able to access food and beverages; nursing/midwifery staffing; staff professionalism; and, staff performance monitoring.

In England, work is currently underway by the Department of Health to develop *Quality Dashboards* suitable for the whole of NHS England (see Annex 1). The intention is to enable information to be gained at: regional, local and provider levels with a focus on facilitating harm free care and quality improvement.

Dashboards are intended to collate near real time information that can support clinical teams to make a decision. The dashboard proposes to feature a range of information about hospital trusts, including the number of registered nurses they have per bed. It will also include a doctor-to-bed ratio, staff and patient survey results and more traditional measures such as data on healthcare-associated infections and mortality ratios.

A key message which emerged from a *Royal College of Nursing summit on clinical dashboards* (RCN 2011) was that the choice of indicators used to measure quality of care is vital and should be based on what is important to the healthcare service user/patient and nursing team. Otherwise there is a risk that dashboards could be used to measure what is convenient, rather than what is necessary. Delegates described the negative effect of data gathering when information systems are crude and where the information environment needs to be streamlined.

Valerie Iles suggests than an '*ability* to compare performance has led to an increased *desire* to do so' and while she suggests there have unquestionably been gains with audit 'a valuable tool that is deservedly here to stay' she also suggests there have been losses – 'largely arising from the fact that we only measure the measurable'. Collecting data only about things it is possible to turn into data, means that important aspects of professional decision making are ignored (Iles 2011). Other commentators have noted that in a performance driven health care system it is essential that performance is not determined almost exclusively by 'quantitative statistical expression' (Feinstein 2001) and that judgements about quality of care will require more sensitive and finely attuned indicators that reflect the appropriate 'milieu' of care (Pryor 2000).

In the *Nursing & Midwifery Dashboard for Wales* (Annex 1) data recorded to the clinical dashboard is uploaded to a web-based hub for all of Wales. Reporting parameters allow organisations to compare organisation against organisation, or against the national picture. Defined nursing indicators of care are being developed and implemented across the NHS in Wales. These indicators aim to allow the monitoring of the quality of care being delivered in the NHS in Wales and enable comparisons between NHS healthcare providers. An indicator specification form is used to set out clear strategic and operational rationale for the choice of indicators. This includes detailed information for each indicator including: known standards, reporting format, interpretation, calculation, data source, information governance, implementation, maintenance and review. There is still a need to risk adjust data to ensure proper comparisons between units/ organisations.

In the near future information collected by wards/units through *Intentional Nurse Rounding*, developed in the United States (see Annex 2) and planned for

implementation across NHS hospitals, could become a routine data collection system for wards/units to measure, assess and improve nursing quality. Making sure these routines have care quality at their heart is a greater challenge and the risk of 'gaming' or for Intentional Nurse Rounding to become a tick box exercise rather than a vehicle for high quality care delivery is ever present.

5. Principles for success

Based on the needs and the evidence base previously outlined, the five principles for designing a national architecture for measuring quality proposed by Robert & Cornwell (2012) have been adapted to guide the development and implementation of indicators of nursing quality. The principles are that any system of national indicators for measuring nursing quality in the NHS must be:

- Fit for purpose (transparency, accountability, improvement)
- Aligned with clinical outcomes and initiatives
- Evidence-based
- Clear, consistent and collectable (drawn from data that is routinely collected)
- Embedded in quality standards

Each of the five principles is now discussed below with links to their importance and relevance in the contemporary NHS illustrated by Figure 2.

5.1 Fit for purpose (transparency, accountability, improvement)

In the UK context, increasing transparency is about the publication of accurate information to inform the public and support patient choice. Nursing metrics need to clearly set out a minimum standard for what service users can expect – such as 'harm free care'. Transparency is a useful mechanism for driving up accountability but it needs to be carefully aligned with guidance to support healthcare professionals to understand and meet defined standards and provide clear direction for how to improve any areas of underperformance (Exworthy et al. 2009).

Now more than ever, nursing metrics are needed to show how nurses contribute to the overall architecture for healthcare quality in the NHS. Firstly to provide an accountability mechanism: to show whether targets and standards have been met and identify areas of underperformance. Performance measures specifically for nursing have the potential to coordinate local efforts with system-wide goals.

There is a need to inform local quality improvement: to create a culture of outcome measurement and a stronger focus on tacking health inequalities. Evidence to inform quality improvement work needs to directly relate to the processes, structures, and resulting outcomes of nursing in a particular healthcare context. This requires nursing measures that, as far as possible, provide staff with the evidence that underlies high quality care (Doran and Pringle 2011).

5.2 Align with clinical outcomes and quality initiatives

To be useful, nursing measurement needs to align with information that is collated at the local level. For example, real time feedback patient experience systems –

such as *Quality Dashboards* (see Annex 1) - can provide rich sources of data about unit/team level activity. However, this information may not be comparable with other units within an organisation because they serve different patient populations, have different targets, staffing configurations and so on.

To inform quality improvement work, clinical teams are likely to define a wider range of specific assessment measures or select quality indicators that are useful to them and target priority areas. These may not be the same as teams working elsewhere or how individuals make assessments about their own practice. The challenge in this situation is to translate information to support the spread of innovation and learning between organisations and regions.

The five overall domains of the Outcomes Framework provide a structure that can ensure nursing quality is aligned with the most important clinical outcomes (preventing people from dying prematurely, enhancing quality of life for people with long-term conditions, helping people to recover from episodes of ill health or following injury, ensuring that people have a positive experience of care, treating and caring for people in a safe environment and protecting them from avoidable harm).

5.3 Evidence-based

Any overarching nursing indicators should be evidence-based and technically sound according to the established concept of evidence-based practice. If the measures are measuring aspects of nursing that are not accurate or valid, then effort and resource will be wasted. As well as helping to ensure that nursing measures align with accepted standards and frameworks for healthcare quality, if they are evidence-based they are more likely to achieve credibility and acceptance from professionals and patients.

5.4 Clear, consistent and collectable (drawn from data that is routinely collected)

Although there is good reason to support measures whereby nursing can demonstrate accountability from the point of care to the board room, there can be huge implications for staff responsibilities for quality measurement and assurance. Key issues are the simplicity and usability of any measurement system itself, usefulness to end-users (e.g. practice teams), and staff understanding of the purpose and benefits of measurement.

It is imperative that measurement should not cause unacceptable burden or unforeseen interaction effects. In some cases nursing measures could lead to unhelpful internal conflict or unhealthy competition within the system. For example, in some cases implementation of new measures can lead to increased financial pressure, target fatigue, staffing problems, or disinvestment in services that fail to achieve high performance outcomes (Kosel et al. 2007). For these reasons, successful implementation of any new measurement framework or

initiative should consider issues highlighted in The Nursing Roadmap for Quality (2010) and draw upon expertise in change management such as the *NHS Change Model* (see Annex 1).

Often the infrastructure and information technology around measurement systems is sophisticated and problems can arise with organisations having to un-do some existing systems or to integrate different measurement systems. Implementing specific initiatives takes time, resources and commitment. It is essential that measures are meaningful and enable progress to be made. This requires measures that are understood and supported by nursing staff, valid in the settings they were intended for, and applied in a consistent way.

There can be subtle variations in apparently consistent measurement processes that undermine the validity of the measures. In some cases quality measurement can lead to incomplete returns, falsification or gaming (Bevan and Hood 2006). Process measures are particularly susceptible to gaming because of problems defining what is being measured and to what extent a process has been completed successfully (Griffiths et al. 2008). This means it is important to set out clear definitions of what is being measured, establish scales, and reporting frameworks/systems.

Measurement of quality also needs to be supported by mechanisms for exception reporting (such as the precedent of the Quality Outcomes Framework in general practice). This helps to account for situations where measures cannot be applied, sufficient data is not retrievable, or has not been returned. Without exemption measures, the completeness of data collection cannot be known or ensured.

5.5 Embedded in quality standards

Evidence abounds of public and professional concerns that nursing care quality is variable and sometimes poor. Nursing metrics should therefore be embedded in quality standards to assure professional and service accountability. They also have the potential to provide useful measures of quality for regulatory bodies such as the Care Quality Commission, to assess compliance with national quality standards.

In the UK, moves to integrate health and social care services means that increasingly it will be important to perceive and monitor quality across organisational boundaries and along patient care pathways as well as managing the performance of individual organisations. Measures of nursing quality need to be responsive to these changes.

6. Conclusions

The publication of the *NHS Outcomes Framework* marked a determination to have more explicit measures of the outcome and quality of NHS services. It represents a growing move towards using nationally-led measurement and reporting of data to enable greater service-wide transparency, accountability and quality improvement. At the same time policy makers, commissioners, regulators, healthcare staff and the public all feel it is important to measure quality in nursing and to assure nursing consistently contributes to high quality care for all patients.

Identifying key indicators that are sensitive to nursing inputs is useful for making explicit what quality means and setting standards across nursing. Thus the drive and interest in developing and using nursing metrics in the United Kingdom and internationally has continued at pace since the publication of *State of the Art Metrics* in 2008.

The last four years have seen a proliferation of quality initiatives within England that make use of nursing metrics. There is now much more local data collection within the NHS and use of quality dashboards, and the sophistication of local systems has improved to support local accountability and performance monitoring. There is some degree of standardisation around specific nursing inputs for patient safety, including the *NHS Safety Thermometer*, and through the *North West Transparency* project.

However, data specifications for outcomes especially are underdeveloped and are not 'on a par' with the state of the art internationally. Given that models such as NDNQI, CALNOC and C-HOBIC exist this might be the place to start as a template for any further standardisation. This opens up the possibility of international benchmarking if we use definitions and specifications for measurement that are compatible.

Lessons from international systems are that:

- Systems that aim to collect patient level data can be risk adjusted, to ensure meaningful comparison across the system (i.e. benchmarking between matched comparators, or for specific specialties).
- Systems and infrastructure need to be put in place and tested to enable consistent definition, collection and interpretation of information.
- Commitment and investment is needed to develop and secure infrastructure from national and regional leads before rolling-out to healthcare provider organisations.
- It is essential to have the right informatics systems, information technology and expertise in place.

- Professional learning networks specifically focusing on the contribution of nursing to achieving high quality care can support implementation.

Whilst there has been considerable interest and some notable successes in measuring nursing quality in the UK, further work is need to:

- Map specific initiatives and the use of associated measures (e.g. use of clinical dashboards and metrics).
- Coordinate a consistent and standardised approach to the collection, analysis, and interpretation of data and supporting information.
- Identify a wider range of metrics and indicators that relate to effective and compassionate care, not just safety.
- Develop metrics that reflect the factors that reflect the wider structural factors that underpin nursing quality, such as staffing, skill mix and staff experiences and link to other care quality metrics such as patient experience.
- Create or adapt local infrastructure (e.g. information systems and technologies) to minimise the burden of measurement on staff.
- Gain an informed understanding of what aspects of nursing quality are being measured by any new system, and what is not - or cannot - be measured (but is still important) and how this fits with the 'whole picture' of nursing quality.
- Explore the potential for patient level data to be risk adjusted, to ensure meaningful comparison across the system (i.e. benchmarking between matched comparators, or for specific specialties).
- Develop and secure support from national and regional leads for a national system of measurement and reporting before rolling-out any future measurement initiative to healthcare provider organisations.
- Secure sufficient resourcing for a national system including for example the right informatics systems, information technology and expertise in place.
- Support professional learning networks specifically focusing on the contribution of nursing to achieving high quality care can support implementation.

References

Aiken, L. H., Sermeus, W., Van der Heed, K., Sloane, D. M., Busse, R., McKee, M. et al. (2012).Patient safety, satisfaction, and quality of hospital care: cross sectional surveys of nurses and patients in 12 countries in Europe and the United States. *British Medical Journal*, 344,1136.

American Nurses Association, 2010. http://www.mnursingworld.org/ainMenuCategories/professionalNursing/PatientSafetyQuality/NDNQI/NDNQI_1/ngSensitiveIndicators.aspx

Bailey A. (2008) Compassionate metrics: an oxymoron in practice. *British Journal of Nursing*. 17 (12) (pp 737).

Bergh C.M., Burke D.D., Bergh P.A. (2011) Evaluating the use of monthly patient engagement metrics as a nursing-sensitive quality indicator. *Fertility and Sterility. Conference: 67th Annual Meeting of the American Society for Reproductive Medicine*, ASRM 2011 Orlando, FL United States.

Bevan H. and Hood C. What's Measured Is What Matters: Targets and Gaming in the English Public Health Care System. Public Administration, 2006; 84(3):517.

Blegen MA. (2006) Patient safety in hospital acute care units. *Annu Rev Nurs Res*. 24:103-25.

Bostick JE, Rantz MJ, Flesner MK, Riggs CJ. (2006) Systematic review of studies of staffing and quality in nursing homes. *J Am Med Dir Assoc*. Jul;7(6):366-76.

Braudis N., Franey K., Ahern J., Curley M. (2010) Establishing nurse-sensitive quality metrics for the pediatric cardiovascular ICU. *Pediatric Critical Care Medicine. Conference: 8th International Conference of the Pediatric Cardiac Intensive Care Society*, PCICS 2010 Miami Beach, FL United States.

Brown D.S., Donaldson N., Burnes Bolton L., Aydin C.E. Nursing-sensitive benchmarks for hospitals to gauge high-reliability performance. Journal for healthcare quality: official publication of the National Association for Healthcare Quality. 32 (6) (pp 9-17), 2010.

Casey A, Clark J, Watterson L. (2006) Are your indicators working? *Nursing Standard*.16-22;20(49):12-5.

Chu H.L., Wang C.C., Dai Y.T. (2009) A study of a nursing department performance measurement system: using the Balanced Scorecard and the Analytic Hierarchy Process. *Nursing Economics*. 27 (6) (pp 401-407).

Coleman, M., Gatta, G., Verdechia, A., Esteve, J., Sant M., Storm, H., Allemani, C., Ciccolallo, L., Santaquilani, M., Berrino, F. EUROCARE Working Group. EUROCARE-3 summary: cancer survival in Europe at the end of the 20th Century. Annals of Oncology, 2003; 14 (5):128-149.

Cornwell J, Foote C. Improving patients' experiences. An analysis of the evidence to inform future policy development. London: The King's Fund 2010.

Coughlin M., Gibbins S., Hoath S. (2009) Core measures for developmentally supportive care in neonatal intensive care units: Theory, precedence and practice. *Journal of Advanced Nursing*. 65 (10) (pp 2239-2248).

Curley M.A., Hickey P.A. (2006) The Nightingale Metrics. *The American Journal of Nursing*. 106 (10) (pp 66-70).

Donabedian, A. The quality of care. How can it be assessed? Journal of the American Medical Association, 1988; 260 (12): 1743-8.

Donaldson, N., Brown, D.S., Aydin, C.E., Bolton, M.L.B., & Rutledge, D.N. (2005). Leveraging nurse-related dashboard benchmarks to expedite performance improvement and document excellence. *Journal of Nursing Administration*, 35(4), 163-172.

Doran, D., Mildon B. and Clarke S. (2011) Toward A National Report Card in Nursing: A Knowledge Synthesis. Prepared for the Planning Committee for a Think Tank entitled "Toward a National Report Card for Nursing" Nursing Health Services Research Unit, University of Toronto.

Doran, D.M. & Pringle, D. (2011). Patient outcomes as an accountability. In D.M. Doran (Ed.). *Nursing outcomes: The state of the science* (pp. 1-28). Sudbury, MA: Jones & Bartlett.

Doran, D.M. (2003). Preface. In D.M. Doran (Ed.), *Nursing-sensitive outcomes: State of the science*, (pp. vii-ix). Sudbury, MA: Jones & Bartlett.

Doran, D.M. (Ed.) (2011). Nursing outcomes: The state of the science. (2nd ed.). Sudbury, MA: Jones & Bartlett.

Doran, D.M., Harrison, M.B., Laschinger, H.S., Hirdes, J.P., Rukholm, E., Sidani, S., McGillis Hall, L., & Tourangeau, A.E. (2006). Nursing-sensitive outcomes data collection in acute care and long-term care settings. *Nursing Research, 55*(2S), S75-S81.

Exworthy, M., Gabe, J., Smith, G., Jones, IR. Open heart surgery. The public disclosure of surgical performance. ESRC Public Services Programme, 2009.

Fahrenkrug, M.A. (2003). Development of a nursing data set for school nursing. *Information Technology*, 19(4), 238-248.

Feinstein, A.R. (2001) Appraising the success of caregiving. In: Cluff, L.E. and Binstock, R.H. (eds) *The lost art of caring: a challenge to health professionals, families, communities and society*. John Hopkins University Press, Baltimore, pp 201-218.

Foulkes M. Nursing metrics: measuring quality in patient care. Nursing Standard (Royal College of Nursing: 1987. 25 (42),40-45.

Gage W., Heywood, S., Norton C. Measuring quality in nursing and midwifery practice. Nursing Standard. 26, 45, 35-40.

Goodrich J., Cornwell, J. (2008) Seeing the person in the patient. London, The King's Fund.

Goossen, W.T.F., Epping, P.J.M.M, Feuth, T., Dassen, T.W.N., Hasman, A., & Van den Heuvel, W.J.A. (1998). A comparison of nursing minimal data sets. *Journal of the American Medical Informatics Association*, 5(2), 152-163.

Graham, C. and MacCormick, S. (2012) Testing overarching questions for patient surveys. Picker Institute Europe.

Griffiths P, Jones S, Maben J, Murrells T. (2008) State of the art metrics for nursing: A rapid appraisal. National Nursing Research Unit, King's College London.

Griffiths, P., Richardson, A., Blackwell, R. (2009) Nursing sensitive outcomes and indicators in ambulatory chemotherapy. National Nursing Research Unit, King's College London.

Ham, C. (2009) Learning from the best: What the NHS needs to do to implement high quality care for all, Health Services Management Centre, University of Birmingham & NHS Institute for Innovation and Improvement.

Hannah, K.J., White, P.A., Nagle, L.M. & Pringle, D.M. (2009). Standardizing nursing information in Canada for inclusion in electronic health records: C-HOBIC. Journal of the American Medical Informatics Association, 16(4), 525-430.

Health Outcomes for Better Information and Care (2009). HOBIC Newsletter: HOBIC Anniversary, 10 years of achievement.

High Quality Care for All, Department of Health: London, 2008.

Holt P.J.E., Poloniecki J.D., Hofman D., Hinchliffe R.J., Loftus I.M., Thompson M.M. (2010) Re-interventions, Readmissions and Discharge Destination: Modern Metrics for the Assessment of the Quality of Care. *European Journal of Vascular and Endovascular Surgery*. 39, 1; 49-54.

Iles, V. (2011) Why Reforming the NHS Doesn't Work: the importance of understanding how good people offer bad care. Really Learning. Available at: http://www.reallylearning.com/Free_Resources/Really_Managing_Healthcare/why-reforming-nhs-book.html (last accessed 26.7.12)

IPSOS MORI (2008) What matters to staff in the NHS. Research study conducted for the Department of Health by IPSOS MORI.

Jenkinson, C., Coulter, A. and Bruster, S. (2002). The Picker Patient Experience Questionnaire: Development and validation using data from in-patient surveys in five countries. *International Journal for Quality in Health Care*, 14(5), 353-358.

Jones, S., Bottle, A., Griffiths, P. (2011) An assessment of "failure to rescue" derived from routine NHS data as a nursing sensitive patient safety indicator for surgical inpatient care. National Nursing Research Unit. King's College London.

Kosel K., Gelinas L., Paxson C. (2007) Nursing measures - Implementation considerations: Lessons learned from the field. *Medical Care Research and Review*. 64 (2 SUPPL.) (pp 82S-103S).

Laschinger, H. K. & Leiter, M. P. (2006). The impact of nursing work environment on patient safety outcomes: The mediating role of burnout/engagement. *The Journal of Nursing Administration*, 36, 259-267.

Leibovici A. (2008) Beyond the Minimum Data Set: Measuring Disruptive Behaviors in Nursing Home Residents. Do We Need Better Psychometrics or Simply Different Metrics? *Journal of the American Medical Directors Association*. 9 (4) (pp 211-212).

Maben J, Peccei R, Adams M, Robert G, Richardson A, Murrells T, and Morrow, E. (2012) Patients' experiences of care and the influence of staff motivation, affect and wellbeing. Final report. NIHR Service Delivery and Organisation programme.

McCance T. Telford L. Wilson J. Macleod O. Dowd A. (2012) Identifying key performance indicators for nursing and midwifery care using a consensus approach. *Journal of Clinical Nursing*. 21(7-8):1145-54.

McGivern, G., Fischer, M., Ferlie, E., Exworthy, M. So long as somebody is watching? The effects of transparency in clinical professional appraisal. ESRC Public Services Programme, 2009.

Montalvo, I. (2007) The National Database of Nursing Quality Indicators™. *The Online Journal of Issues in Nursing*. 12 (3) 2.

Mooney H. Measuring quality in nursing. Nursing Times. 2009 Jan 13-19;105(1):8-11.

Morrow, E., Robert, G., Maben, J. and Griffiths, P. (2012) Implementing large-scale quality improvement – lessons from The Productive Ward: Releasing time to careTM. International Journal of Health Care Quality Assurance, 25(4) 237-253.

NHS Institute & NNRU (2010) *The Productive Ward: Releasing time to care™. Learning and Impact Review*. NHS Institute: Warwick.

NHS Institute & NNRU (2011) *Improving healthcare quality at scale and pace. Lessons from The Productive Ward: Releasing time to care™*. NHS Institute: Warwick.

NHS Institute (2011) *Rapid Impact Assessment of The Productive Ward: Releasing time to care™*. NHS Institute: Warwick.

NHS Outcomes Framework 2012/2013. Department of Health: London.

Nobel's Hospital Nursing and Midwifery Metrics. http://www.gov.im/lib/docs/health/About_DH/nursingmidwiferymetrics.pdf

Patrician, P.A., Loan, L., McCarthy, M., Brosch, L.R. & Davey, K.S. (2010). Towards evidence-based management: Creating an informative database of nursing-sensitive indicators. *Journal of Nursing Scholarship*, 42 (4), 358-366.

Patterson M., Nolan M., Rick J., Brown J., Adams R., Musson G. (2010) From Metrics to Meaning: Culture change and quality of acute hospital care for older people. Queen's Printer and Controller of HMSO. NIHR SDO: Project 08/1501/93 (Dec 2005-Jan 2011) Institute of Work Psychology, University of Sheffield.

Pencheon D. The Good Indicators Guide: Understanding how to use and choose indicators. Warwick: NHS Institute for Innovation and Improvement, 2008.

Pryor, J. (2000) Creating a rehabilitative milieu. *Rehabilitation Nursing*, 25: 141-144.

Quality Outcomes Framework, 2010. http://www.dh.gov.uk/en/Healthcare/Primarycare/Primarycarecontracting/QOF/index.htm

Raleigh V. and Foot C. Getting the Measure of Quality. King's Fund: London, 2010.

RCN (2009) Measuring for quality in health and social care. An RCN Position statement. Royal College of Nursing: London.

RCN (2011) Nursing dashboards – measuring quality. Royal College of Nursing: London.

Reay, N. How to measure patient experience and outcomes to demonstrate quality in care. *Nursing Times* 2010; 106 (7): 12-14.

Reese S.M. (2010) Using labor metrics to achieve value-driven health care. Healthcare financial management : *Journal of the Healthcare Financial Management Association*. 64, 8, 90-94.

Robert G. and Cornwell J. (2012) *What matters to patients? Policy recommendations*. A report for the Department of Health and NHS Institute for Innovation and Improvement, Warwick. (available at www.institute.nhs.uk)

Robert, G. Cornwall, J. Brearley, S. Foot, C. Goodrich, J. Joule, N. Levenson, R. Maben, J. Murrells, T. Tsianakas, V. Waite, D. (2012) What Matters to Patients; developing the evidence base for measuring and improving the patient experience. London: The Kings Fund.

Robert, G., Morrow, E., Maben, J. and Griffiths, P. (2011) The adoption, local implementation and assimilation into routine practice of a national quality improvement programme: The Productive Ward™ in England. *Journal of Clinical Nursing*, 20 (7-8): 1196-1207.

Solberg, L., Mosser, G and McDonald, S. The three faces of performance measurement: improvement, accountability, and research. The Joint Commission Journal on Quality Improvement; 1997, 23 (3): 135-47.

Sunderland M. Metrics enable the profession to take control of nursing quality. Nursing Times. 105 (46) (pp 11), 2009.

The Nursing Roadmap for Quality. A signposting map for nursing, Department of Health: London, 2010.

The Prime Minister's Commission on the Future of Nursing and Midwifery in England, Front Line Care. London, 2010.

Van den Heede, K., Clarke, S.P., Sermeus, W., Vleugels, A. & Aiken, L.H. (2007). International experts' perspective on the state of nurse staffing and patient outcomes literature. *Journal of Nursing Scholarship*, 39(4), 290-297.

Williams A. and Kristjanson L. Emotional care experienced by hospitalised patients: development and testing of a measurement instrument. *Journal of Clinical Nursing*. 2009; 18(7):1069-77.

Appendix: The Task and Finish Group members

Name	Organisation
Peter Blythin (Chair)	Director of Nursing, National Quality Team
Michelle Mello (Project Lead)	National Implementation Director, Energise for Excellence
Professor Elizabeth Robb	Chief Executive, Florence Nightingale Foundation
Lynn Callard	Interim Director, NHS Institute for Innovation and Improvement
Mike Davidge	Head of Measurement, NHS Institute for Innovation and Improvement
Professor David Foster	Deputy CNO, DH
Professor Jill Maben (Director)	National Nursing Research Unit, King's College London
Jane Ball (Deputy Director)	National Nursing Research Unit, King's College London
Sharon Blackburn	The National Care Forum
Katherine Murphy	Chief Executive, Patients Association
Maxine Power	Director (NHS Quest)
Nursing and Care Quality Forum members	
Sally Brearley	Chair, Nursing and Care Quality Forum
Candice Pellet (Case Manager)	Lincolnshire Primary Care Trust
Catherine Gamble (Nurse Consultant)	South West London & St Georges Mental Health NHS Trust
Melanie Coombes (Deputy Nurse Director)	Coventry & Warwickshire Partnership Trust
Annette Hall (Senior Ward Sister)	Milton Keynes Hospital NHS Trust
Nurse Directors	
Ros Alstead (Director of Nursing and Clinical Standards)	Oxford Health NHS Foundation Trust, and representing The National Mental Health Nurse Directors Group
Janice Sigsworth (Director of Nursing)	Imperial College Healthcare NHS Trust
Gill Harris (Deputy Chief Executive/ Director of Nursing and Performance)	Wrightington, Wigan and Leigh NHS Trust

Annex 1: Nursing quality initiatives (United Kingdom)

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Energise for Excellence (E4E)	Energise for Excellence (E4E) is a nursing and midwifery improvement approach which uses large scale change and mobilising methods to improve quality and lower cost. Working with the NHS Institute for Improvement & Innovation (NHSI), E4E seeks to support NHS transformation by building on these methods with a call to action methodology and a web based organising framework. E4E supports improvement by aligning exisiting change programmes to improve quality, safety and reduce costs. E4E is a way of mobilising and engaging frontline nurses in making change happen by aligning improvement work under one umbrella.	Since 2010 the E4E framework has been developed by organisational champions using a test and learn methodology. The framework (umbrella) which has been developed to overarch the contents, clearly describes the essential elements of a comprehensive quality improvement approach.	• The approach helps to organise strategic improvement portfolios, locally, regionally and nationally. It allows staff to identify overlap and gaps. E4E also addresses essential care standards. It has the ability to galvanise nurses and midwives, creating a sense of ownership of quality improvement. • One of the domains of the E4E framework is about Measuring the quality of care. It covers: Productive Care, Safety Express, High Impact Actions, Nurse sensitive outcome measures. • A further domain of the E4E framework is about Patient experience. It covers: Real-time monitoring, Experience based design, Single sex accommodation, Patient stories.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Heart of England Foundation Trust (using nursing care metrics developed in the North West of England)	A set of nursing care and patient experience metrics has been implemented across Heart of England Foundation Trust. The nursing care metrics were initially developed in the North West of England and are shortly to be adopted by the NPSA as a national care indicator set. Metrics measure standards of recordkeeping for the core activities. These provide a range of patient quality, safety and experience metrics which allow robust monitoring of standards of care.	The aim is for hospital wide implementation. There has been a vigorous campaign to ensure that staff are prepared, with information giving sessions aimed at all groups of nursing staff. Standards of care are closely monitored and results reported to Quality and Standards Committee. Problem areas identified and remedial action taken immediately to protect standards of care. Patient Satisfaction - real-time feedback using a 'Back to the Floor' approach for non- clinical staff. A dedicated section of the nursing intranet provides staff with useful information.	• The nursing care indicators cover highest areas of risk: Patient observations, Pain management, Falls assessment, Tissue Viability, Nutritional assessment, Continence Assessment, Medication administration, Infection Prevention and Control. • Concurrently patient experience indicators aim to explore the patient's perspective of many of the above elements of care and in addition such issues as privacy and dignity and communication. Patient feedback is collected from general ward areas; asking a minimum of 15 patients ten questions based on the Care Quality Commission's Inpatient Survey.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
High Impact Actions for Nursing and Midwifery	The high impact actions for nursing and midwifery project asked frontline staff to submit examples of high quality and cost effective care that, if adopted widely across the NHS, would make a transformational difference. The NHS Institute for Innovation and Improvement's *Essential Collection*, highlighting some of the stories behind the 600 submissions, was published on 29 June 2010. The guide has been specifically designed to provide a range of materials that will help NHS organisations adopt and implement some of these improvements into their own local context. There is a separate section within the guide dedicated to eight high impact actions that the project identified.	Information on each high impact action is set out on the NHS Institute website and the scale of the challenge and the potential opportunity in terms of improvements to quality and patient experience and reduction in cost to the NHS are explained. Good practice examples highlighted within the eight impact actions submission pages demonstrate how organisations can implement changes.	• Organisations can choose to use national indicators of nursing quality include: Skin damage, Nutrition, Indwelling catheters, Compassion, Pain. • Many other local indicators include: Patient Safety Tool, measures related to patient pathways, Use of patient outcome/clinical data, Patient complaints, Patient surveys. • Some evidence of High Impact Actions information being brought together within clinical dashboards.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Implementing Human Factors in Healthcare Developed by Patient Safety First	An initiative, developed in 2010, by Patient Safety First based on the concept of human factors in healthcare. It makes suggestions of how its elements can be applied by individuals and teams working to improve patient safety. It aims to build awareness of the importance of human factors in making changes to improve patient safety. Human factors encompass all those factors that can influence people and their behaviour. In a work context, human factors are the environmental, organisational and job factors, and individual characteristics which influence behaviour at work.	Organisations or teams can use the guidance to understand why healthcare staff make errors and in particular, which 'systems factors' threaten patient safety. The guidance can help to improve the safety culture of teams and organisations, enhance teamwork and improve communication between healthcare staff, improve the design of healthcare systems and equipment, identify 'what went wrong' and predict 'what could go wrong', appreciate how certain tools can help to lessen the likelihood of patient harm.	• Encourages organisations to examine their baseline measures of the number of incident reports submitted to a local incident reporting system at a specific time (quarterly or annually), including the type and severity of incidents, and staff groups reporting. • Recommends organisations use one of several safety culture measurement tools that are available e.g. RCN Safety Climate Assessment Tool. • Suggests measuring the % of staff who received human factors training in the last year to help monitor progress in increasing this number over time.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
In Your Shoes Events For example, King's College Hospital/ Nottingham Hospital/ Northeast London and the City	Patients, carers and family members are invited to share their views in direct conversation with members of the trust.	In Your Shoes events aim to gain patient feedback about experiences of care provided. Patients are generally asked 'what made your visit to the hospital good or not so good' or to share their views on planned changes, the introduction of new systems or ways of delivering care.	• Descriptive patient 'stories' and feedback about which aspects of services might be improved.
Intentional Nurse Rounds/ Back to the Floor Rounds King's Fund Hospital Pathways Project /NHS Harm Fee care Campaign	An approach to nursing care delivery where patients receive regular planned checks. Hospital inpatients are generally checked on every hour or in some cases two-hourly. Process data is collated and can be compared with safety data or benchmarks.	In UK hospitals intentional rounding methods, or Proactive Patient Rounds, have generally been introduced as part of larger quality improvement initiatives, such as the Hospital Pathways Project, or the NHS 'Harm Free' care campaign. At University Hospital Southampton Ward Leader Ward Rounds are undertaken daily. Every patient is reviewed every day to assess their holistic health needs. The initiative is an opportunity to coach and supervise staff and detect any emerging problems with care provided.	• Information is generally collected on patients': pain control, medication, hydration and nutrition, toileting, safety and comfort of bedside environment.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Learning Disability Health Equalities Framework Developed by the UK Learning Disability Consultant Nurse Network	In May 2011 a UKLDCNN group established itself to consider wider outcomes work in learning disabilities. The group initially focused on the NHS Outcomes Framework and attempted to translate this in to learning disability nursing clinical practice. The group went on to look at the evidence base being developed by the LD Public Health Observatory through its publications and data analysis. Ideas generated by the group were taken back to clinical teams for consultation and reference.	In November 2011 an Initial indicator set was developed by Gloucestershire LD nurses. The determinants of health inequalities in learning disabilities that form the basis of this approach are: Determinant 1: Exposure to social determinants of poorer health such as poverty, poor housing, unemployment and social disconnectedness Determinant 2: Physical and mental health problems associated with specific genetic and biological conditions in learning disabilities Determinant 3: Personal health behaviour and lifestyle risks such as diet, sexual health and exercise Determinant 4: Communication difficulties and reduced health literacy Determinant 5: Deficiencies in access to and the quality of healthcare and other service provision.	• The group worked up determinants into measures of outcome by agreeing descriptors or indicators of what such determinants would look like in practice. This framework has been entitled the LD Health Equalities Framework. • Each determinant is broken down into 5 sets of indicators of impact with a scale ranging from 'no impact' through to 'major impact'. • The Health Equalities Framework has been piloted utilising a census methodology. Work is underway to further develop the validity, reliability and sensitivity of the Framework and to scope its potential in a range of settings and with a range of stakeholders.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Magnet Nursing Services Recognition Program	Magnet designation, or recognition of the 'best' hospitals, was conceived in the early 1980s when the American Academy of Nursing (AAN) conducted a study to identify which hospitals attracted and retained nurses, and which organisational features were shared by these successful hospitals, referred to as magnet hospitals. In the 1990s, the American Nurses Association (ANA), through the ANCC, established a formal programme to acknowledge excellence in nursing services: the Magnet Nursing Services Recognition Program.	Increasing numbers of UK Hospitals are seeking to gain Magnet accreditation. As part of the process organisations are required to present nursing-sensitive indicator data related to patient outcomes for a 2-year period. Organisations must provide unit level data on all indicators listed.	• Indicators focus on whether measurement systems are in place and outcomes are acted upon, including work to reduce- Falls, pressure ulcer incidence, bloodstream infections, urinary tract infections, ventilator-associated pneumonia, restraint use, paediatric IV infiltrations, other specialty specific nationally benchmarked indicators.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Mental health nurse sensitive metrics (Mental Health and Learning Disability Nurse Directors' and Leads') MHLDND Forum	The MHLDND Forum aim to develop mental health nursing sensitive metrics.	A work group was set up following MHLDNDL Forum Conference to develop care specific mental health nursing sensitive metrics. The focus is on in-patients at present- but the ambition is to develop care metrics for the majority of care provided outside of hospital longer term which are care rather than nursing focussed. At the present time the local picture is care measurement in board dashboards widespread- not standardised. Most Trusts have a local set of care/ nursing metrics in addition to Performance Reports e.g. Oxford Health FT Productive and Safety Dashboard. The aim is to minimise administrative burden –by using existing patient information systems to draw data.	• Focus on positive actions –'always events' rather than measuring harm caused by nurses/healthcare staff. • Reduction of restraints – prone position and floor restraint. • Reduction in harm from falls (not total number). • Reduction in medication administration recording errors and meds reconciliation within 12 hours of admission. • Outcome focus measures for nutrition. • Physical health – community and inpatients- failure to rescue • Therapeutic engagement and one to one time- ? Building on questions from CQC inpatient survey. One Trust is using a measure of therapeutic engagement. • Structural measures such as staffing levels and ratios vital.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Mental Health and Learning Disability Safety Audit Optional Benchmarks Supported by NHS Midlands and East	In early 2011 a group of interested mental health and learning disability practitioners/patient safety leaders came together with the aim of developing a point prevalence safety tool specifically for mental health/ learning disability settings. Following a one day workshop held in May 2011, four harms were identified as the most relevant and pertinent to mental health and learning disability. These were: • Self-Harm • Violence and Aggression • Falls • Medicines errors (which later became Medicines omission/ Delay) A series of optional benchmarks have been developed for frontline clinicians and managers to have a clearer understanding as to where the gaps may exist within either clinical practice or organisational management which, if addressed, may improve and strengthen local systems and processes for reducing harm.	Currently 10 organisations across England are signed up to test the mental health/learning disability Safety Audit tool, with a further 20 keen to engage in the near future. Elements of the Safety Audit include: • Ward Managers Checklist which reviews local clinical practice in respect to assessment, care planning and management of incidents. • Organisational Assurance Tool which explores issues such as executive leadership and ownership of the area of harm, policies, procedures and guidance, and staff training. • Risk Matrix which identifies how the elements of the Ward Managers Checklist and the Organisational Assurance Tool are linked into best practice guidance.	• Safety Audit self-harm assessment and management, focuses on patient/ client assessment, care planning, management of incident post self-harm, leave/discharge management.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Metrics Assurance Framework Heart of England NHS Foundation Trust	Monthly programme of 'spot checks' on each ward following clearly defined nursing care indicators and criteria. Patient experience data is also collected (using the testyourcare system) including: experience of staff hand washing, respect and dignity, involvement in care decisions, privacy, aspects of cleanliness and comfort of care environment.	Nursing care metrics were originally developed in the North West of England. Metrics are used to ensure standards of record keeping	• Nursing care indicators cover areas of highest concern in terms of greatest risk: Patient observations, Pain management, Falls assessment, Tissue viability, Nutrition assessment, Continence assessment, Medication administration, Infection prevention and control, Diabetes care.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
NHS Patient Feedback Challenge Developed by the NHS Institute for Innovation and Improvement	The NHS Patient Feedback Challenge, launched in March 2012, is backed by a £1m challenge fund which will support the development of demonstration sites that: • Develop a fully integrated patient experience measurement system that leads to continuous improvement cycles. • Create wholly patient focused organisations. • Encourage spread and adoption of positive patient experience practice within and across organisations. • Develop sustainable approaches that live beyond the initial programme.	The NHS Patient Feedback Challenge is designed to provide a financial reward for those NHS organisations which develop a culture which rapidly identifies areas for improvement in experience and implements the best ideas. The NHS Institute will support development of partnerships between NHS organisations, social care, local government, commercial, voluntary and third sector organisations to create innovative approaches to spread and implement proven approaches to improving patient experience. A web portal will enable organisations to submit ideas and support development of projects. Teams will be able to bid for staged funding/ reward. The programme will include development support which will have been identified through the application process.	• Types of evidence of impact will include: Spread and adoption of proven patient experience measurement approaches across organisations, regions and the wider health and social care landscape, Continuous improvement of all services using all available feedback approaches, Routinely engaging doctors, nurses, clinical teams and other staff in measuring and improving patient experience, Developing an organisation and/or system-wide patient focus, Turning good patient experience in to an everyday occurrence for all.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Northwest Transparency Project	Nursing Leaders from eight acute NHS Trust in the North West came together in 2011 as members of the Transparency Project to see if they could learn more about the pressure ulcers and fall harms that occur in their organisations. Members of the group meet monthly to share learning and experiences with a view to reducing harm and explaining to patients what is being done to improve care.	Liverpool Heart and Chest Hospital were one of the 8 pilot sites for the project. Following the initial pilot during November and December 2011, a defined standard and approach to the transparency was agreed. A narrative template is available for organisations to make information on falls and pressure ulcers available to the public.	• Measures for falls linked to National Patient Safety Agency guidance (moderate, severe, death). • Measures of pressure ulcers linked to European Pressure Ulcers Grading Scale (stages 2, 3 and 4). • Mini investigations are prompted by reporting of incidents. These draw on risk assessment methods and route cause analysis to assess how improvements to care could be made.
Nursing Assessment and Accreditation System (NAAS) Salford Royal NHS Foundation Trust	A performance management system to measure wards and departments against a set of agreed standards, which are assessed against observations of care, documentation reviews and questioning patients and staff. Standards incorporate nurse sensitive outcome indicators. A community accreditation system has also been developed.	At Salford Royal NHS Foundation Trust the Nursing Assessment and Accreditation System (NAAS) is a document designed to help nurses in practice by measuring the quality of nursing care delivered by ward teams. This performance assessment framework is based on the Trust's Safe, Clean, Personal approach to service delivery and combines Key Performance Indicators and Essence of Care standards.	• The framework is designed around 13 standards with each standard subdivided into three elements: leadership, care and environment. • Risk assessment data is measured for timeliness and accuracy.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Nursing & Midwifery Dashboard for Wales (Wales)	Data recording to the clinical dashboard is uploaded to a web-based hub for all of Wales. Reporting parameters allow organisations to compare organisation against organisation, or against the All Wales picture. Users can drill down to hospital site and then compare two sites.	Defined nursing indicators of care are being developed and implemented across the NHS in Wales. These indicators will allow the monitoring of the quality of care being delivered in the NHS in Wales and enable comparisons between NHS healthcare providers.	• An indicator specification form is used to set out clear strategic and operational rationale for the choice of indicators. This includes detailed information for each indicator including: known standards, reporting format, interpretation, calculation, data source, information governance, implementation, maintenance and review.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Productive Community Services: Releasing Time to Care™ Developed by the NHS Institute for Innovation and Improvement	Implementation of the Productive Community Services programme can assist community health organisations to demonstrate value for money in the use of public resources by ensuring that clinical staff time is wherever possible directed at delivering high quality patient care. The programme aims to improve quality, safety and efficiency in line with trust strategies ensuring that they link with key organisational objectives.	Part of the Productive Series (alongside The Productive Ward: Releasing Time to Care™) developed by the NHS Institute for Innovation and Improvement. Modules and tool kit are available to all NHS organisations. Implementation can be supported by clinical facilitation and support offered by NHS Institute.	• Measures include: Patient Facing Time - Registered Nurse, Patient Facing Time - Healthcare assistant, Patient satisfaction, Staff satisfaction, Short term sickness, Pressure ulcers grade 2 or above; Developed, Pressure ulcers grade 2 or above; End of life, Pressure ulcers grade 2 or above; Referred into service, MUST Score to be completed at point of wound assessment, Completion of adapted Walsall assessment on first contact for all patients identified at risk of pressure ulcers, Doppler assessment completed on all leg ulcers, Staff leaving work on time (local team measure), % of staff completed Basic Fire Awareness (annual), % of staff completed Moving and Handling (2 yearly), % of staff completed Resuscitation (annual), % of staff completed Infection control (annual), % of staff completed Safeguarding Children level 1 (3 years), % of staff completed Equality and Diversity (3 yearly), % of staff completed Appraisal PDR (annual), % of staff completed Information

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
			Governance (3 Yearly), % of staff completed Conflict Resolution, % of staff completed Safeguarding adults 1 (once only), % of staff completed Safeguarding level 2 (2 yearly). • Governance measures include: Number of reported SIRIs, NICE guidelines updates returns, Number of high risk incidents (orange) reported, Number of incidents reported, Number of medication incidents reported, % of CAS alerts responded to by internal deadline, Number of risks rated 9 and above on the risk register for more than 6 months (orange & red), Number of accolades, Number of complaints.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
QIPP Programme Safe Care Workstream 'Safety Express'	QIPP (Quality, Innovation, Productivity and Prevention) is a large scale transformational programme for the NHS, involving all NHS staff, clinicians, patients and the voluntary sector. It aims to improve the quality of care the NHS delivers while making up to £20billion of efficiency savings by 2014-2015, which will be reinvested in frontline care. The Safe Care workstream has established a quality improvement programme, called 'Safety Express', to help the NHS to develop safer care in hospitals and in community settings. The aim is to work towards reducing harm from: • Hospital and community acquired pressure ulcers • Blood clots (DVT and pulmonary embolism) • Urinary tract infections in patients with catheters • Falls in care settings The ambition is to eliminate harm from these conditions in 95% of patients by 2012.	Safety Express has been working in 100 settings across England since January 2011 with Foundation Trusts and other acute providers, Community providers, Mental Health Trusts and Care Homes. The plan is to extend this work to another 300 settings. The quality improvement methodology used is well established in healthcare and involves organisations coming together to learn from and share good practice with each other.	• The 'Safety Thermometer' is a measurement instrument developed by the Safe Care workstream and the Information Centre to measure prevalence of these various harms at specific times and the proportion of patients who are "harm free" at any given time. As organisations repeatedly measure on a sample of their patients they get a picture of their improvement and how rapidly this is happening. Measures are focused on providing information to inform the reduction of: · Hospital and community acquired pressure ulcers · Blood clots (DVT and pulmonary embolism) · Urinary tract infections in patients with catheters · Falls in care settings

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Quality Dashboards Developed by the National Quality Team	Ongoing work to develop a dashboard suitable for the whole of NHS England. The intention is to enable information to be gained at: regional, local and provider levels with a focus on facilitating harm free care and quality improvement. Dashboards are different to performance reports. Should report in near real time. Data may not be perfect, merely good enough to make a decision. Therefore using metrics that are captured frequently.	The Quality Dashboard has been developed and is undergoing testing with NHS providers. NQT are also completing a narrative/user guide to support application, and working to develop a prototype into a web based platform.	• Currently refining the metrics and dashboard design. • Whole system measures e.g. Safe from Harm, linked to measures at a local level e.g. infection rates, incident reporting.
Solihull Community Health Services Indicators	A well-defined set of indicators for assessing community health services.	Developed and used in Solihull community health services.	• The Indicators cover nine areas: 1. Infection control and environment, 2. Privacy and dignity and professionalism 3. Communication 4. Core nursing assessments for patients in care 5. Tissue viability indicators 6. Continence indicators 7. End of life indicators 8. Diabetes indicator 9. IV Therapy indicators.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Testyourcare Heart of England NHS Foundation Trust	Online system for real time reporting of patient experience. Questions can be tailored to different types of care environments.	A webpage shows patient experience reporting scores by month.	• Can be used to ask patients about their experiences of care including for example: experience of staff hand washing, respect and dignity, involvement in care decisions, privacy, aspects of cleanliness and comfort of care environment.
The NHS Safety Thermometer (QUIPP Safe Care Workstream)	Designed to be patient focussed and measure harm free care (the absence of all four harms) as well as the individual harms. Measures patients that are 'harm free' at the point of care in a systematic way. Supports improvements in patient care and patient experience.	At least 170 NHS organisations in England are currently using the NHS Safety Thermometer once per month to rapidly review the proportion of patients free from harm. Capable of being used wherever the patient is located (home, community or hospital setting). Can prompt immediate action by healthcare staff and allows measurement in any setting where care is being delivered. Focuses staff attention on delivery of harm free care.	• Asks very clearly defined questions about four key outcomes: Pressure ulcers, Falls, Urinary infection, VTE. • Integrates measurement of four safety measures into daily nursing routines.

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
The Productive Ward: Releasing Time To Care™ Developed by the NHS Institute for Innovation and Improvement	The Productive Ward aims to increase the proportion of time nurses spend on direct patient care, to improve experiences for staff and patients, and to make structural changes to the use of ward spaces to improve efficiency. It is made up of 13 modules designed for self-directed learning at ward level. Implementing organisations are encouraged to beginning with three foundation modules called Knowing How We are Doing, Well Organised Ward, and Patient Status at a Glance. Then, to proceed on to modules focused on a range of ward processes including admissions, discharge and shift handovers. It draws upon principles of 'Lean Thinking' to reduce activities that do not add value (Morrow al. 2012).	The programme was developed in the UK by the NHS Institute for Innovation and Improvement in 2005 and was developed at four test sites in 2006, before being rolled out to ten Learning Partners in 2007. In the last two years the programme has been widely adopted in the United Kingdom National Health System (NHS) and has spread internationally (Robert et al. 2012). Widespread adoption in NHS hospitals.	• Measures of impact for the Productive Ward programme itself include: changes in direct care time, staff satisfaction, patient experience, reduced harm events (such as MRSA, C-diff, pressure ulcers and falls), reduced re-admissions (NHS Institute & NNRU 2010). • There are also measures of productivity, efficiency and financial impact, including: reduced length of stay (and reduced excess bed day costs per patient), reduced staff sickness and absence, stock reduction (NHS Institute 2012). • Organisations may also employ measures of spread of Productive Ward implementation, to monitor rate of progress, shared learning, and embedded improvements (NHS Institute & NNRU 2011).

Nursing quality initiatives (United Kingdom)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
The Turnaround Project University Hospital Southampton	The Turnaround Project was developed to engage staff in interventions to reduce pressure ulcer incidence at University Hospital Southampton. The methodology is also being applied to falls and other improvement priorities.	The project has been successful in capturing the hearts and minds of nurses in the Trust who have embraced the two hourly nursing interventions, which reduce avoidable pressure ulcers and falls. The next steps are to ensure these interventions are sustainable. Further actions include the introduction of memory boxes for patients with dementia and the development of a falls passport to identify patients at risk, the plan of care for the whole pathway of care and facilitate communication between organisations. The learning from this project will then be tested in more Trusts and rolled out nationally.	• Falls incidence. • Pressure ulcer incidence.

Annex 2: Nursing quality initiatives (International)

Nursing quality initiatives (International)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Agency for Healthcare Quality and Research (AHQR) Patient Safety Indicators (United States of America)	The Agency for Healthcare Research and Quality (AHRQ) has developed an array of health care decision making and research tools that can be used by program managers, researchers, and others at the Federal, State and local levels.	The AHRQ QIs are used in free software distributed by AHRQ. The software can be used to help hospitals identify quality of care events that might need further study. The software programs can be applied to any hospital inpatient administrative data. These data are readily available and relatively inexpensive to use.	• Quality Indicators (QIs) are measures of health care quality that make use of readily available hospital inpatient administrative data. The QIs can be used to highlight potential quality concerns, identify areas that need further study and investigation, and track changes over time. • Patient Safety Indicators reflect quality of care inside hospitals, as well as geographic areas, to focus on potentially avoidable complications and iatrogenic events. They include a nursing subset of patient safety indicators for acute care.

Nursing quality initiatives (International)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
American Nurses Association (ANA) National Database of Nursing Quality Indicators (United States of America)	Nurse sensitive indicators for acute, paediatric, long term care and psychiatric care settings. Information is collected at the unit level, enabling comparisons for quality improvement. NDNQI is risk stratified by unit type. Allows the potential to identify linkages between staffing and patient outcomes, nursing quality evaluation for improvements, and to inform Magnet Recognition Program, and RN Retention and recruitment.	In 1994 ANA launched its Patient Safety & Quality Initiative. In 1998 the ANA National Center for Nursing Quality and its database NDNQI was established, housed at the University of Kansas School of Nursing. Approximately 1800 hospitals in 50 States are making use of NDNQI. Participation is voluntary and anonymous. 15 international hospitals participate. Nursing units submit data quarterly.	• Measurements are based on three dimensions of care following Donabedian's (1988) well recognized 'structure, process and outcome framework'. • Measures of structure of care are: Supply of staff, Skill level of the nursing staff, Education/ certification of nursing staff, and Nurse turnover. • Measures of nursing care process are: Assessment, Intervention, RN job satisfaction. • Measures of Patient outcomes, determined to be nursing sensitive are: Hospital acquired pressure ulcers, Patient falls, IV infiltrations, Restraint use, and Healthcare-associated infections.

Nursing quality initiatives (International)			
Title	**Purpose/Aims**	**Implementation/Usage**	**Measures**
Collaborative Alliance for Nursing Outcomes (CALNOC) (United States)	CALNOC database development and repository project, the largest state-wide effort of its kind in the United States (US), currently includes data on hospital nurse staffing, patient days, patient falls, pressure ulcer and restraint prevalence, registered nurse (RN) education, and patients' perceptions of satisfaction with care. CALNOC is the first US registry dedicated to nursing sensitive measures at the unit level. Unit level data are recorded for: Adult Acute Care – Critical Care, Step Down, Medical, Surgical, Med/ Surgical Combined, Pediatrics, Post-Acute (SNF, Distinct Part), Acute Rehabilitation, Emergency Department, and Child & Maternal Care.	As of 2010, CALNOC had aggregated almost 13 years of data, representing more than 1,700 patient units, over 64 million patient days, over 183,000 patient falls, and 534,000 patients have been evaluated for pressure ulcers and restraint use. Hundreds of US hospitals have joined CALNOC to monitor and benchmark performance.	• Structural measures are: Hours of nursing care per patient days, Skill mix, Percent contracted hours, Ratios, Voluntary turnover, RN characteristics (Education, Experience, Years of Service), Unit rate of admissions, Discharges and transfers. • Process measures are: Falls, Hospital acquired pressure ulcers, Medication administration, Accuracy safe practices, PICC line insertion practices. • Outcome measures are: Hospital acquired pressure ulcer by stage, Fall rate and Injury fall rates, Restraint prevalence rate, Central line-associated blood stream infections in PICC lines, Medication administration accuracy nurse safe practices finding and error rates.

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Common Formats for Safety Measurement, Center for Quality Improvement and Patient Safety Agency for Healthcare Research and Quality (United States of America)	Initiative in the US to generate a standardized system for collecting information on adverse patient safety events. The aim is to develop a system that will provide information on harm from all causes, support immediate local use of data collected for quality improvement, allow those collecting data to collect them once and supply them to agencies that require information. Decrease the data collection burden, increase the value of information collected by organisations, and lay groundwork for incentive-based programmes based on performance data.	Common Formats standardize- definitions, reports, data collection, and technical specifications for software support. Narratives are collected on all adverse events; whilst they are not used at a national level they can inform local improvement. Regional and national reports can be generated from local data. Common Formats are site specific (e.g. hospital level).	• Common Formats include: Incidents (that reached the patient whether or not there was harm), Near misses (patient safety events that did not reach the patient), and Unsafe conditions (any circumstances that increase the probability of a patient safety event occurring). For patient safety Incidents 168 data elements might apply. • Event specific categories are – Blood or Blood Product, Device or Medical/Surgical Supply, Fall, Healthcare-Associated Infection, Medication or Other Substance, Perinatal, Pressure Ulcer, Surgery or Anaesthesia.

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Hospital Nursing-Sensitive Benchmarks Kaiser Permanente (United States of America)	Sets out hospital nursing-sensitive benchmarks from medical/surgical, critical care, and step-down units drawn from 196 hospitals during six quarters in 2007 and 2008. Provides information about nursing-sensitive data from the Collaborative Alliance for Nursing Outcomes for use in performance improvement processes.	Specific benchmarks are provided for hospitals by using the 10th and the 90th percentiles, as well as quartiles to allow hospitals an opportunity to understand comparative performance with specificity.	• Outcome measures include pressure ulcer prevalence rates and fall/falls with injury rates. • Additional indicators that describe nursing care (nurse staffing care hours, skill mix, nurse/patient ratios, workload intensity, voluntary turnover, and use of sitters) and patient descriptors (age, gender, and diagnosis description) were also included.

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Institute of Medicine The Future of Nursing: Leading Change, Advancing Health (United States of America)	In 2008, The Robert Wood Johnson Foundation (RWJF) and the IOM launched a two-year initiative to respond to the need to assess and transform the nursing profession in the US. The IOM appointed the Committee on the RWJF Initiative on the Future of Nursing, at the IOM, with the purpose of producing a report that would make recommendations for an action-oriented blueprint for the future of nursing.	Through its deliberations, the committee developed four key messages: • Nurses should practice to the full extent of their education and training. • Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression. • Nurses should be full partners, with physicians and other health care professionals, in redesigning health care in the United States. • Effective workforce planning and policy making require better data collection and information infrastructure.	• Recommendation 8 of the report was to build an infrastructure for the collection and analysis of interprofessional health care workforce data, to develop a standardized minimum data set across states and professions that can be used to assess health care workforce needs by demographics, numbers, skill mix, and geographic distribution.

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Intentional Rounding Dashboard Sacred Heart Hospital Florida (United States of America)	Intentional Rounding (also known as nurse rounds) has been widely taken up by US hospitals. The Sacred Heart dashboard for Intentional Rounding features a set of measures for Safety, Patient satisfaction and Patient experience of nursing.	After each hourly patient round a rounding dashboard report is used to collate information at a ward level.	• Metrics for Safety are: Fall rate, Pressure ulcers, Call light volume. • Metrics for Patient satisfaction are: Pain controlled, Response to call light, Staff worked together as a team, Attitude towards your requests, Attention to personal needs, Overall rating of care. • Metrics for Patient experiences of nursing include: Nurses Overall, Friendliness / courtesy of the nurses , Promptness response to call, Nurses' attitude toward requests, Attention to special / personal needs, Nurses kept you informed, Skill of the nurses, How well your pain was controlled.

Nursing quality initiatives (International)			
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National Report Card in Nursing Health Canada, The Academy of Canadian Executive Nurses (ACEN), the Canadian Nurses Association (CNA), and Canada Health Infoway (CHI) (Canada)	A collaboration of more than 50 nurse leaders in health services delivery from each region of the country, as well as thought leaders from other key sectors: research, education, professional associations, informatics, regulatory bodies, and federal/provincial/territorial nurse advisers. The objectives of this joint collaborative forum are for nurse leaders to create a shared vision and critical path for a national report card on nursing, to generate support for the work amongst the nursing leadership community, and to outline the concrete steps to achieve it through collaboration with other national and quality system initiatives for health information in Canada (Doran et al. 2011).	The report card for nursing is envisioned as a selected minimum set of data on input, process and output indicators that can be collected nationally (initially using pilot sites) and benchmarked. In the future, such report card data will be used to formulate relationships between the levels of indicators, and will consequently reveal the contribution of nursing care to nursing sensitive outcomes and influence policy direction for nursing (Doran et al. 2011).	• Nursing Minimum Data Sets (NMDS) generally focus on a core set of patient safety outcomes, such as pressure ulcers, falls, and nosocomial infections. HOBIC and C-HOBIC have taken a broader perspective to include outcomes such as functional status, symptoms, and therapeutic self-care. • Four quadrants of measurement are: System integration and change, Clinical utilisation and outcomes, Patient satisfaction, Financial performance and condition. • Accordingly, selection of nursing sensitive outcomes for a Canadian nursing report card is likely to encompass data on structure, process and outcomes (the three Donabedian 1988 categories), and include both quality and safety indicators.

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Noble's Hospital Nursing/ Midwifery Metrics (Isle of Man)	At Noble's Hospital, metrics have been developed to reflect care in in-patient and out-patient settings, for adults and children, in critical care areas and conventional ward locations. As a result of this approach, there is an opportunity to benchmark between clinical areas in a division or across divisions; there is even the potential to benchmark outside the organisation. The Nursing and Midwifery Metrics which have been developed seek to enquire about the following three domains: patient safety and governance; the patient experience; and, the nursing/ midwifery infrastructure underpinning the delivery of patient care. In order to do this, the metrics measure indicators such as: the presence of relevant risk assessments; identification and monitoring of risks to patients (including failure to rescue); patients knowing the names of the nursing and/or midwifery staff delivering care; patients feeling comfortable and safe in hospital;	On alternate months, each division's senior nurse/ midwife undertakes the measurement of the metrics related to five patients on each ward/department. Sources of information used to inform metrics include: Patient records, Ward records, Asking patient/parent/child (patient experience reporting), Observation, Organisational records. All of the results are processed, compiled and returned to the relevant senior nurse/midwife to share with her/his team. Any areas for improvement can then be action planned by ward/department teams, and those areas which are compliant can share their examples of best practice with their colleagues.	• On inpatient wards, metrics for Patient Safety & Governance are: Malnutrition Universal Screening Tool (MUST) assessment, Water low, Oral hygiene, Moving and Handling, Falls (patients over age 65). Observations of vital signs (completed and accurate), Fluid balance charts, Cases of slips, trips and falls monitored and remedial action commenced, Cases of pressure sores acquired are monitored and remedial action commenced. Methicillin-Resistant Staphylococcus Aureus (MRSA) bacteraemia acquired, Clostridium Difficile Toxin (CDT) acquired. • On inpatient wards, metrics for Patient Experience are: Staff introduce themselves to patients, Staff providing direct patient care wear uniform and identification badges, The ward is clean and tidy, Call bells are answered promptly, Nursing/midwifery staff are kind to patients, Nursing/midwifery staff are pleasant and polite to patients, Patients are involved in their plan of care, Staff wash/clean their hands before touching patients, Patients are offered sufficient beverages, Patients are offered sufficient food and snacks, Patients are given assistance to eat if required.

Nursing quality initiatives (International)			
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	patients being able to access food and beverages; nursing/midwifery staffing; staff professionalism; and, staff performance monitoring.		• On inpatient wards, metrics for Nursing/ Midwifery Infrastructure are: Sickness absence rate, Time spent on Continuous Professional Development, Other absence, Establishment vacancy rate, Bank and agency staff usage, Staff adhere to uniform policy, Staff are professional in their contact with patients, Staff have attended all mandatory training required for the post, Staff have an active performance review/appraisal.

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Regional Adverse Incident Learning Model (RAIL) Health & Social Care Public Health Agency (Northern Ireland)	A new model of information management for adverse incidents was developed in consultation with around 200 HSC staff from a range of backgrounds. The Regional Adverse Incident Learning model (RAIL) has been approved by the departmental board of the DHSSPS and the Health Minister. RAIL will aim to: maximize the reporting of adverse incidents and near misses; ensure that learning from all incidents and near misses, where relevant, is identified; provide a mechanism to share learning from adverse incidents in a meaningful way within the HSC; ensure that learning from adverse incidents is put into practice in a timely manner.	The project team and project board have been established and both have had their first meetings. A workshop was arranged for 1 April 2011 to develop knowledge on other similar learning and information systems. Representatives from England, Wales and the Republic of Ireland were invited to provide the attendees with a knowledge-based presentation. Information sharing activities were also arranged.	• The following criteria will determine a serious adverse incident: 1. Serious injury to, or the unexpected/ unexplained death (including suspected suicides and serious self-harm) of: a service user; a service user known to mental health services (including child and adolescent mental health services (CAMHS) or Learning Disability (LD) within the last two years); a staff member in the course of their work; a member of the public while visiting a HSC facility. 2. Unexpected serious risk to a service user and/ or staff member and/or member of the public. 3. Unexpected or significant threat to provide service and/or maintain business continuity. 4. Serious assault (including homicide and sexual assault) by a service user: on other service users; on staff; on members of the public occurring within a healthcare facility or in the community (where the service user is known to mental health services including CAMHS or LD within the last two years). 5. Serious incidents of public interest or concern involving theft, fraud, information breaches or data loss.

The report is available as a free PDF download from the National Nursing Research Unit website:

http://www.kcl.ac.uk/nursing/research/nnru/publications/

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