An Evaluation of the Extent of Measurement of Nursing and Midwifery Interventions in Ireland
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost-Effectiveness</td>
<td>32</td>
</tr>
<tr>
<td>Training in the Use of Tools</td>
<td>33</td>
</tr>
<tr>
<td>Factors Affecting the Use of Tools</td>
<td>33</td>
</tr>
<tr>
<td>Contents of a Resource Pack</td>
<td>35</td>
</tr>
<tr>
<td>Other Ways to Enhance the Nursing and Midwifery Contribution</td>
<td>36</td>
</tr>
<tr>
<td>Future Plans to Introduce Instruments, Scales or Assessment Tools</td>
<td>36</td>
</tr>
<tr>
<td>Promoting the Use of Instruments</td>
<td>36</td>
</tr>
<tr>
<td>Support from the National Council</td>
<td>37</td>
</tr>
<tr>
<td>Conclusion</td>
<td>37</td>
</tr>
</tbody>
</table>

### CHAPTER 4. CONCLUSIONS AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Present Study</td>
<td>39</td>
</tr>
<tr>
<td>Recommendations</td>
<td>40</td>
</tr>
<tr>
<td>Conclusion</td>
<td>41</td>
</tr>
</tbody>
</table>

### REFERENCES

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>REFERENCES</td>
<td>43</td>
</tr>
</tbody>
</table>

### APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1. Nursing and Midwifery Interventions – Research Literature Summary</td>
<td>47</td>
</tr>
<tr>
<td>Appendix 2. Questionnaire</td>
<td>59</td>
</tr>
<tr>
<td>Appendix 3. Schedule for Focus Group Discussions</td>
<td>65</td>
</tr>
<tr>
<td>Appendix 4. Examples of International Perspectives on Nursing Interventions</td>
<td>67</td>
</tr>
<tr>
<td>Appendix 5. Tools Identified by the Focus Group Participants for Measuring the Outcomes of Interventions</td>
<td>71</td>
</tr>
</tbody>
</table>

### Bibliography

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliography</td>
<td>73</td>
</tr>
</tbody>
</table>
Glossary of Terms and Acronyms

ACENDIO  Association for Common European Nursing Diagnoses, Interventions and Outcomes
A membership organisation established in 1995 to promote the development of nursing’s professional language and provide a network across Europe for nurses interested in the development of a common language to describe the practice of nursing.
www.acendio.org

BFHI  Baby-Friendly Hospital Initiative
A global campaign by the World Health Organisation and the United Nations Children’s Fund (UNICEF) which recognises that implementing best practice in the maternity service is crucial to the success of programmes to promote breastfeeding.
www.ihph.ie/babyfriendlyinitiative/
www.unicef.org/programme/breastfeeding/baby.htm

CINAHL  Cumulative Index to Nursing and Allied Health Literature
www.cinahl.com

CNCCE  Centre for Nursing Classification and Clinical Effectiveness, University of Iowa
www.nursing.uiowa.edu/centers/cnccce/

DoHC  Department of Health and Children
www.dohc.ie

DVD  digital versatile/video disc/disk

Essence of Care  Essence of Care (first published by the NHS in 2001 and updated in 2003) comprises patient-focused benchmarks of best practice for health and social care practitioners and covers nine areas of fundamental care. It provides a tool to help practitioners take a patient-focused and structured approach to comparing, sharing and developing practice to improve the quality of care.

Excellence Ireland  Quality Association
The national partner organisation for European Foundation for Quality Management programmes in Ireland.
www.eiqa.com

HIQA  Health Information and Quality Authority
www.hiqa.ie

HPH  Health Promoting Hospitals
An initiative of the World Health Organisation’s Collaborating Centre for Health Promotion in Hospitals and Health Care, which aims to support the development of hospitals and other healthcare institutions in Europe and other regions of the world into healthy and health-promoting settings and organisations.
www.hph-hc.cc
www.hphallireland.org

HSE  Health Service Executive
The HSE is responsible for providing health and personal social services for everyone living in the Republic of Ireland. As outlined in the Health Act, 2004, the objective of the HSE is to use the resources available to it in the most beneficial, effective and efficient manner to improve, promote and protect the health and welfare of the public.
www.hse.ie

ICN  International Council for Nurses
A federation of national nurses’ associations founded in 1899 and representing nurses in more than 120 countries.
www.icn.ch
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
</table>
| ICNP | International Classification for Nursing Practice®
A unified nursing language system aimed at facilitating the development of and the cross-mapping among local terms and existing terminologies. [www.icn.ch/icnp.htm](http://www.icn.ch/icnp.htm) |
| IHSAB | Irish Health Service Accreditation Board
An independent organisation whose primary purpose is to establish, continuously review and operate an accreditation scheme for the Irish health system within a quality improvement framework. [www.ihsab.ie](http://www.ihsab.ie) |
| ISO | International Organisation for Standardisation
A network of the national standards institutes of over 150 countries with a Central Secretariat in Geneva, Switzerland. [www.iso.org](http://www.iso.org) |
| JCAHO | Joint Commission on Accreditation of Healthcare Organizations
An independent, not-for-profit organisation, the JCAHO is a standards-setting and accrediting body in health care in the USA. [www.jcaho.org](http://www.jcaho.org) |
| JCI | Joint Commission International Centre for Patient Safety
An on-line resource for healthcare professionals and the public with links to patient safety websites, tips, tools and resources for addressing patient safety problems. [www.jcipatientsafety.org](http://www.jcipatientsafety.org) |
| NANDA | North American Nursing Diagnosis Association
Created in 1982 and originally comprising American and Canadian members, NANDA International is committed to increasing the visibility of nursing’s contribution to patient care by continuing to develop, refine and classify phenomena of concern to nurses. [www.nanda.org](http://www.nanda.org) |
| NDA | National Disability Authority
An independent statutory agency established under the aegis of the Department of Justice, Equality and Law Reform by the National Disability Authority Act 1999 and focusing on promoting and securing the rights of people with disabilities. [www.nda.ie](http://www.nda.ie) |
| NHS | National Health Service
Founded in 1948, the NHS comprises the four publicly funded healthcare systems of the United Kingdom. [www.nhs.uk](http://www.nhs.uk) |
| NIC | Nursing Interventions Classification
Introduced by the College of Nursing, University of Iowa, USA, in 1987. See the website of the Centre for Nursing Classification and Clinical Effectiveness (CNCCE). |
| NMDS | nursing minimum data set
A nursing minimum data set provides a formal structure for (electronic) data sets to support nursing care in all settings. |
| NOC | Nursing Outcomes Classification
Introduced by the College of Nursing, Iowa, USA, in 1991. See the website of the Centre for Nursing Classification and Clinical Effectiveness (CNCCE). |
| OECD | Organisation for Economic Co-operation and Development
An affiliation of 30 member countries sharing a commitment to democratic government and the market economy. Its work covers economic and social issues including health. [www.oecd.org](http://www.oecd.org) |
| QUASAR | Quality Assurance Surveys and Reports
A commercially produced audit software package. |
| UK | United Kingdom |
| USA | United States of America |
The National Council for the Professional Development of Nursing and Midwifery is delighted to publish *Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack*. This two-part publication comprises a report of a study on the extent to which nurses and midwives in Ireland document their interventions and the outcomes of these interventions (Part 1) and some preliminary guidance and assistance to those nurses, midwives and services coming to grips with the challenges of determining what interventions to select and assess (Part 2).

Nurses and midwives have the potential to carry out a wide range of interventions in a variety of health care settings and with patients and clients with varying and diverse needs. By identifying their interventions and measuring the outcomes of these interventions, nurses and midwives can articulate and clarify their roles and functions in relation to both the settings in which they work and the patients and clients to whom they deliver services and care. This publication is timely given the current climate of health service reform and service quality improvement, in which healthcare professionals are increasingly required to demonstrate the effectiveness of what they do and articulate how they are contributing to the quality of patient and client care. Furthermore, *Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack* reflects the National Council’s continuing consultative approach to working with nurses and midwives at all levels in the health service and across different sectors in order to explore how they integrate professional and health system matters with the demands of service delivery.

I extend my thanks to all the individuals and organisations who participated in the study and to those who supported others to participate. Particular thanks are extended to my colleagues Kathleen Mac Lellan (Head of Professional Development and Continuing Education), who steered the overall project, and Christine Hughes (Professional Development Officer), who undertook the research and compiled the two documents. I am also grateful to Jenny Hogan, Elizabeth Adams and Sue McGovern for their respective contributions.

Yvonne O’Shea
Chief Executive Officer
In the current climate of health service reform and service quality improvement, healthcare professionals are increasingly required to demonstrate the effectiveness of what they do and articulate how they are contributing to the quality of patient and client care. Nurses and midwives have the potential to carry out a wide range of interventions in a variety of health care settings and with patients and clients with varying and diverse needs. By identifying their interventions and measuring the outcomes of these interventions, nurses and midwives can articulate and clarify their roles and functions in relation to both the settings in which they work and the patients and clients to whom they deliver services and care.

The National Council for the Professional Development of Nursing and Midwifery has a well-established history of reviewing developments in nursing, midwifery and healthcare and of consulting nurses and midwives working across a range of services and settings in Ireland to assess the extent to which the developments are taking place. In 2005 the National Council commenced a study of nursing and midwifery interventions and the measurement of their outcomes taking place in Ireland. This study comprised extensive literature reviews, development of terms of reference, a questionnaire survey and focus group discussions with nurses and midwives. Documented in Part 1 (An Evaluation of the Extent of Measurement of Nursing and Midwifery Interventions in Ireland), the data gathered show that nurses and midwives working in general hospitals, children's hospitals, older person care settings, mental health services, primary care settings and intellectual disability settings are indeed striving to demonstrate, record and articulate what it is they do. They are taking part in hospital- and organisation-wide quality improvement and assurance programmes and they are using recognised instruments, scales and assessment tools to guide and document their interventions. In addition, the data have also indicated the guidance and resources already available, as well as indicating what is needed to enable nurses and midwives to continue to work as effectively in the future. Using this information the National Council has developed the Guidance and Resource Pack in Part 2. This pack builds upon the literature reviewed in Part 1 as well as the findings from the study. Its aim is to assist nurses, midwives and services seeking to select and assess nursing and midwifery interventions as part of a service quality improvement initiative or other type of enterprise.

Healthcare is dynamic and constantly evolving in response to new evidence, policies and models of service provision. Inevitably, any resource pack will have a limited shelf-life. The Guidance and Resource Pack will be available on the National Council's website, where it can be updated and added to by nurses and midwives with experience and expertise in interventions and outcomes measurement in diverse settings.

Structure of Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack

The entire Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack is divided into two separate documents.

Part 1: An Evaluation of the Extent of Measurement of Nursing and Midwifery Interventions in Ireland

This document comprises the following chapters:

1. Introduction to Part 1
2. Literature Review
3. Findings
4. Conclusions and Recommendations

These chapters make up a report on the study undertaken into the extent of interventions and outcomes measurement being carried out by nurses and midwives in Ireland. References for and appendices to these chapters are also contained in Part 1.

Part 2: Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack

This document was developed from the literature review and the findings of this study. It comprises five sections:

1. Guidance for Nurses and Midwives: Ten Questions
2. Internet Resources for Nursing and Midwifery Interventions
3. Internet Resources for Healthcare
4. Identifying Your Own Sources and Resources
5. Developing Interventions and Outcomes Measurement: An Interactive Approach
Sections 1 to 3 of Part 2 were developed on the basis of the findings from the study. Part 2 contains its own references. Both parts contain the same foreword, overall introduction, glossary and bibliography.
An Evaluation of the Extent of Measurement of Nursing and Midwifery Interventions in Ireland
Background to the Project

Enhancing the quality of care, health service provision and delivery is a central plank of the current national health strategy Quality and Fairness – A Health System for You (DoHC 2001) and of the health service reform programme (DoHC 2003). In achieving the national goal of high performance in the health and social services of Ireland Quality and Fairness requires that the quality and safety of care in the Irish health system meet agreed standards, that these are regularly evaluated against the agreed standards and that the delivery of services will be evidence-based.

The work of the National Council for the Professional Development of Nursing and Midwifery (National Council/NCNM) centres on promoting the professional development of individual nurses and midwives and of the two professions as a whole, but is undertaken in line with the national health service agenda of providing high-quality care in a cost-effective, efficient manner. Nurses and midwives comprise a large proportion of the health service workforce, providing care on a twenty-four hour day, seven-day week basis. Nursing and midwifery interventions are those actions taken to improve the health of a patient/client and to enable them to take steps to improve and maintain their own health. In the wider multidisciplinary health care context nursing and midwifery interventions occur in tandem with interventions made by other members of the multidisciplinary team (MDT); these nursing and midwifery interventions may also occur as a result of decisions taken dependently or independently of the MDT. Thus, this document strives to capture the contribution made by nurses and midwives to the care of patients/clients through their interventions and the extent of measurement of those interventions as part of overall quality assurance programmes.

A preliminary literature review was undertaken in order to identify issues and themes relating to the measurement of nursing and midwifery interventions and outcomes (see Appendix 1). This review focused on research undertaken by nurses and midwives in support of outcomes measurement systems, the most frequently referred to being those from North America. Terms of reference for the project were derived from the preliminary literature review, a review of developments in the Irish health service and of developments within nursing and midwifery in Ireland.

Terms of Reference:
1. Identify current activities relating to the measurement of nursing and midwifery interventions
2. Review documents relating to nursing and midwifery intervention measurement and identify their relationship to multidisciplinary healthcare interventions and audit
3. Identify and review relevant literature and other media for guiding and documenting nursing and midwifery interventions
4. Review Irish (and international) health service documents relating to quality, accreditation, clinical governance, cost-effectiveness and healthcare interventions

Methodology

A mixed methodology approach was adopted involving an extensive literature review, a questionnaire survey in November 2005 and focus group discussions in February 2006. The focus groups were held following a preliminary review and analysis of responses to the questionnaire. The resource pack elements are based on the findings of the data collected and on the relevant international and national literature.

Literature Review

The literature review was undertaken in stages:

- An initial review of research articles on nursing and midwifery interventions and measurement of their outcomes
- A further review of the literature around the themes identified within the terms of reference of the project
- A review of print and web-based resources pertaining to the themes identified within the terms of reference and arising from the data collected during the questionnaire survey and focus group discussions.
Questionnaire

A wide range of themes and issues were identified in the literature relating to the measurement of the outcomes of nursing and midwifery interventions such as terminology, instruments used for measuring the outcomes of nursing and midwifery interventions, the relationship of nursing and midwifery interventions to multidisciplinary healthcare provision and resources needed for interventions and outcomes measurement. A preliminary questionnaire was developed and piloted with a purposive sample of six nurses and a midwife working in a range of practice settings (i.e., general acute, mental health, intellectual disability, paediatrics, public health and midwifery). This piloting of the questionnaire led not only to some amendments to the wording and format of the questionnaire, but also a reformulation of its overall purpose. The main aim of the final version of the questionnaire (see Appendix 2) was to evaluate the extent to which measurement instruments were used by nurses and midwives working in Irish health services and the range of the instruments used by them. It also aimed to explore such matters as: the use of the terminology relating to instruments used in nursing and midwifery interventions; the measurement of the outcomes; the instruments used; the stages at which such instruments were used; how they were completed and the extent of training in their use, if any.

Data collection

A total of 449 questionnaires was sent to various groups, namely:

- directors of nursing (and midwifery) in public, voluntary and private hospitals and other nursing services in Ireland (n=278)
- directors of public health nursing (n=36)
- a randomised sample of clinical nurse specialists in general practice (n=36)
- directors of nursing working in private nursing homes affiliated to an association of nursing homes (n=99).

Of these 160 were returned, giving an overall response rate of 35.6%; however, two questionnaires had not been completed (N=158), giving a valid response rate of 35.2%. The questionnaires were analysed using SPSS (Versions 13 and 14) and Excel.

Demographics

One hundred and fifty-two respondents indicated their job title/grade at which they were employed (see Table 1.1). The majority of respondents were in senior and front-line management posts. Those who indicated that they were working in posts other than those listed on the questionnaire gave their job titles as director of centre, director of care, clinical development co-ordinator, head of centre of nurse education, head of research and development, intermediate core team manager, nurse manager, nurse tutor, quality and education facilitator, quality co-ordinator, and senior nurse manager.

Table 1.1. Job Title of Respondents Completing Questionnaire

<table>
<thead>
<tr>
<th>JOB TITLE</th>
<th>FREQUENCY</th>
<th>PER CENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Director Nursing/Midwifery</td>
<td>44</td>
<td>28.9</td>
</tr>
<tr>
<td>Director Nursing/Midwifery (including acting directors)</td>
<td>33</td>
<td>21.7</td>
</tr>
<tr>
<td>Nursing/Midwifery Practice Development Co-ordinator</td>
<td>32</td>
<td>21.1</td>
</tr>
<tr>
<td>Clinical Nurse/Midwife Manager</td>
<td>18</td>
<td>11.8</td>
</tr>
<tr>
<td>Clinical Nurse/Midwife Specialist</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>Clinical Facilitator</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>100.0</td>
</tr>
</tbody>
</table>

All respondents indicated the type of organisation or service in which they were working, the largest proportion being older person care settings (see Table 1.2).
Table 1.2. Type of Organisation/Service Provider

<table>
<thead>
<tr>
<th>TYPE OF ORGANISATION/SERVICE PROVIDER</th>
<th>FREQUENCY</th>
<th>PER CENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Hospital/Care Setting</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Community/Primary Care Service</td>
<td>22</td>
<td>13.9</td>
</tr>
<tr>
<td>General Hospital</td>
<td>25</td>
<td>15.8</td>
</tr>
<tr>
<td>Intellectual Disability Service</td>
<td>10</td>
<td>6.3</td>
</tr>
<tr>
<td>Obstetric/Midwifery Hospital/Care Setting</td>
<td>5</td>
<td>3.2</td>
</tr>
<tr>
<td>Older Person Care Setting</td>
<td>64</td>
<td>40.5</td>
</tr>
<tr>
<td>Psychiatric Hospital/Service</td>
<td>10</td>
<td>6.3</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>12.7</td>
</tr>
<tr>
<td>Total</td>
<td>158</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The twenty other types of services named by the respondents were:
- Child and adolescent mental health (2)
- Community addiction service
- Community hospitals (2; including one providing a range of services)
- Elective hospitals (2)
- General practice
- Hospice/specialist palliative care service
- Irish blood transfusion service
- Nursing homes (2)
- Specialist hospitals and services (e.g., ophthalmic; radiation and oncology; orthopaedic; hospice/palliative care; care of older person; transfusion; rehabilitation/adult disability/older persons; non-acute rehabilitation and residential)
- Tertiary hospital incorporating general, children’s and psychiatry
- Service comprising general and children’s hospital, obstetric and older person setting.

One hundred and five respondents (77.8%) indicated that their organisation belonged to bands 1 to 5 (McCarthy, Tyrrell and Cronin 2002)1 (see Figure 1.1).

Figure 1.1. Size/Activity Level of Organisation/Service Provider

1 The hospital banding system refers, inter alia, to the various types of hospitals’ activity levels (i.e., number of patients per annum), responsibility for stated numbers of nursing staff and hospital budget (McCarthy, Tyrrell and Cronin 2002).
"Other" responses included further explanatory information about the types of service or organisation, such as:

- Addiction services
- Band 2a
- Community client for older persons
- Community services (2)
- Do not understand what is meant by bands
- Mental health service (2)
- Nursing home/care centre (2)
- Private (2)
- Private nursing home (2)
- Residential centres
- Voluntary.

Almost half of organisations or services within which the respondents were working (n=69, 45.4%) were reported as having had a bed capacity of or provided services for up to 100 patients or clients (see Table 1.3).

Table 1.3. Bed Capacity/Number of Client Places

<table>
<thead>
<tr>
<th>BED CAPACITY/NUMBER OF CLIENT PLACES</th>
<th>FREQUENCY</th>
<th>PER CENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50</td>
<td>36</td>
<td>23.7</td>
</tr>
<tr>
<td>50-100</td>
<td>33</td>
<td>21.7</td>
</tr>
<tr>
<td>101-150</td>
<td>12</td>
<td>7.9</td>
</tr>
<tr>
<td>151-200</td>
<td>11</td>
<td>7.2</td>
</tr>
<tr>
<td>201-250</td>
<td>12</td>
<td>7.9</td>
</tr>
<tr>
<td>251-300</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>301-350</td>
<td>8</td>
<td>5.3</td>
</tr>
<tr>
<td>351-400</td>
<td>5</td>
<td>3.3</td>
</tr>
<tr>
<td>401-500</td>
<td>3</td>
<td>2.0</td>
</tr>
<tr>
<td>501-1000</td>
<td>15</td>
<td>9.9</td>
</tr>
<tr>
<td>More than 1000</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Not applicable</td>
<td>10</td>
<td>6.6</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Focus Groups

Focus group discussions were conducted in order to explore further the issues identified in the literature review and from the findings of the questionnaire survey.

The purpose of the focus group discussions was to examine participants’ understanding, use and experience of:

- nursing and midwifery interventions
- tools to measure interventions and outcomes
- audit
- cost-effectiveness
- accreditation schemes and other quality initiatives
- training in the use of tools measuring outcomes of nursing and midwifery interventions
- factors affecting the use of tools.

In addition, participants were asked to consider the content of a resource pack, resources needed by nurses and midwives, other ways to enhance the nursing and midwifery contribution and to suggest how the National Council could support the measurement of nursing and midwifery interventions and outcomes (see Appendix 3). Each session comprised a presentation covering the background of the project, its terms of reference and its progress; instructions concerning the topics for discussion.
within working groups (see above) and feedback from the working groups. Participants were asked to take and retain notes of
their discussions in the working groups. As feedback was given from the working groups to the facilitator, written notes were
 taken by an observer; these notes and those prepared by the working groups were used to inform this report and ensure the
authenticity of the data collected. Discussion of topics at the six focus groups was semi-structured (with two additional questions
put to the participants in the sixth session – see Appendix 3). Where distinct working groups were formed at the focus group
sessions (e.g., participants from midwifery, mental health or education settings), their comments are reported separately if they
differed markedly from those of other working groups.

Three methods were used to recruit participants to the focus group discussions. Firstly, the questionnaire (Evaluation of the
Extent of the Measurement of Outcomes of Nursing and Midwifery Interventions – see Appendix 2) distributed in November
2005 facilitated respondents to indicate if they wished to contribute their knowledge and experience by attending a focus group
discussion. Secondly, nurses and midwives attending the National Council’s fifth annual conference in November 2005 were
given the opportunity to express their interest in attending. Finally, letters of invitation to the first five focus group sessions
were sent in January 2006 to those directors of nursing and/or midwifery, the randomised sample of clinical nurse specialists in
general practice and the directors of the nursing homes to whom the questionnaire had been sent. In addition, letters of
invitation to the sixth session were sent to the heads of schools of nursing and/or midwifery and to the directors of the centres
of nurse education in February 2006. The six focus groups were held in February 2006, in Dublin, Cork and Tullamore.

Five focus group discussions were held with nurses and midwives of different grades and working in different service areas; one
further focus group was held with representatives from the centres of nurse education and the third-level sector in order to
explore with them topics and issues arising from the survey and from the discussions with the other five groups. The sixth focus
group explored the role of those involved in the further education and training of nurses. This group was also asked to outline
their actual and potential roles in training and educating nurses/midwives about interventions and outcomes measurement and
describe any relevant projects currently being undertaken (see Box 1.1).

Box 1.1. Participants at the Focus Groups: Target groups; Dates; Locations; Numbers

<table>
<thead>
<tr>
<th>Target Group</th>
<th>Date</th>
<th>Location</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>6 February 2006</td>
<td>Dublin</td>
<td>21</td>
</tr>
<tr>
<td>Session 2</td>
<td>6 February 2006</td>
<td>Dublin</td>
<td>18</td>
</tr>
<tr>
<td>Session 3 (Participants working in practice/service areas)</td>
<td>13 February 2006</td>
<td>Tullamore</td>
<td>18</td>
</tr>
<tr>
<td>Session 4</td>
<td>13 February 2006</td>
<td>Tullamore</td>
<td>8</td>
</tr>
<tr>
<td>Session 5</td>
<td>16 February 2006</td>
<td>Cork</td>
<td>10</td>
</tr>
<tr>
<td>Session 6 (Participants working in education)</td>
<td>28 February 2006</td>
<td>Dublin</td>
<td>10</td>
</tr>
</tbody>
</table>

Composition of the Focus Groups

A total of eighty-five nurses and midwives participated in the focus group discussions, of whom seventy-five attended the five
sessions organised for those working in practice/service areas or settings (see Box 1.2). The ten participants at the sixth focus
group session were working in a centre of nurse education, an institute of technology or a university; their stated job titles were
directors of a centre of nurse education (n=4), a head of an institute of technology, a lecturer, a lecturer-researcher, nurse tutors
(n=2) and a specialist co-ordinator.
The practice/service settings in which the participants reported they were working were as follows:

- Acute general hospitals (voluntary and statutory; regional and local), including those providing paediatric services
- Specialised hospitals (e.g., sensory; cancer)
- Specialised services (e.g., drug treatment centres, blood transfusion service, emergency care)
- Behaviour support in intellectual disability
- Community care and hospitals
- Obstetric hospitals
- Mental health services
- Specialised units or areas within general hospitals (e.g., infection control; mental health; stoma care; oncology; coronary care; ear, nose and throat; haematology)
- Specialised nursing/midwifery roles (i.e., nursing practice development, palliative care)
- Care of the older person hospitals and units, including community home nursing services.
Structure of Part 1

The entire Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack is divided into two separate documents. Part 1 (An Evaluation of the Extent of Measurement of Nursing and Midwifery Interventions in Ireland) comprises the following chapters:

1. Introduction to Part 1
2. Literature Review
3. Findings
4. Conclusions and Recommendations

These chapters make up a report on the study undertaken into the extent of interventions and outcomes measurement being carried out by nurses and midwives in Ireland. References for and appendices to these chapters are also contained in Part 1.
CHAPTER ONE Introduction to Part 1
CHAPTER TWO

Literature Review

The continuing drive for high standards of quality of healthcare, health service delivery, performance and accountability has affected the ways in which nurses, midwives and other healthcare professionals identify their roles and what their functions are in relation to their roles. Nursing and midwifery roles and functions encompass interventions and measuring the outcomes of these interventions, and nurses and midwives, whether they work in frontline practice, education or management, have identified a multiplicity of interventions undertaken by nurses and midwives in diverse settings and with patients/clients with various and varying healthcare needs. Concomitantly, modern healthcare systems require healthcare professionals to demonstrate the cost-effectiveness of their interventions: nurses and midwives are therefore challenged to articulate what it is they do and its benefits to patients and clients in a way that it is meaningful not only to themselves, but to their multidisciplinary healthcare, social care and health service administrative colleagues.

The scope of the terms of reference (see Chapter 1) of the current study covers an extensive literature, namely research and other activities relating to the measurement of nursing and midwifery interventions, multidisciplinary healthcare interventions, documenting interventions, and quality improvement and assurance programmes. This literature review will serve, therefore, as an overview of these themes and topics. The National Council has already reviewed the literature pertaining to clinical nurse and midwife specialists and advanced nurse practitioners (National Council 2004 and 2005), so only that literature concerning the interventions and outcomes measurement by other nursing and midwifery grades was examined (see Appendix 1 for a summary of the international research literature examined).

Nursing and Midwifery Interventions

Interventions and Outcomes –Terminology

An intervention is an action which results in a change, therefore an outcome is the result of the intervention. Thus health interventions include those actions taken by healthcare professionals and others to improve the health of a patient/client and to enable them to take steps to improve and maintain their own health. Health interventions are usually treatment-focused (clinical) or preventive (educational) (Bruhn 2001). Similarly, nursing interventions are treatments or actions that benefit a patient or client by presenting a problem, reducing or eliminating a problem, or promoting a healthier response (Carpenito-Moyet 2004). In the health and social care context nursing and midwifery interventions occur in tandem with interventions by other health and social care professionals and non-professionals. It has been acknowledged that nursing (and midwifery) interventions may be “initiated”, “prescribed” or directed either by nurses/midwives or by physicians (Bulechek and McCloskey 1989 in Wright and Leahey 2000; Carpenito-Moyet 2004).

Outcomes are the results of interventions, therefore nursing and midwifery outcomes are the results of nursing and midwifery interventions or actions. Outcomes may be diagnosis-specific (i.e., relate to outcomes associated with specific medical diagnoses or conditions), system-specific (e.g., pertaining to medication errors, patient falls and infection rates) or discipline-specific (i.e., reflecting the practice and standards of a healthcare discipline) (Behrenbeck et al 2005). Outcomes may also be multidisciplinary, and it has been argued that each discipline should identify and measure patient outcomes most influenced by its practice to foster the development of knowledge and ensure that standards of care evolve as knowledge increased in the discipline (Johnson and Maas 1999). Multidisciplinary outcomes that measure general health status and patient satisfaction may provide useful information for those agencies paying for health care delivery, but are not necessarily specific enough to determine accountability for changes to improve outcomes and are not suitable for monitoring the health and treatment status of individual patients (Behrenbeck et al 2005).

There are many terms used in the nursing (and midwifery) literature in relation to nursing interventions and outcomes, with some appearing to have distinct meanings and some appearing to be used interchangeably, for example, nurse-sensitive and nursing-sensitive. Box 2.1 shows some common terms relating to nursing interventions and outcomes with sample explanations of their use in the nursing literature.
Box 2.1. Common Terms Used in the Nursing Literature in Relation to Nursing Interventions and Outcomes

<table>
<thead>
<tr>
<th>TERM</th>
<th>DEFINITION OR DESCRIPTION</th>
<th>AUTHOR(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursing intervention</td>
<td>Nursing interventions are treatments or actions that benefit a client by presenting a problem, reducing or eliminating a problem, or promoting a healthier response. Nursing interventions can be classified as two types: nurse-prescribed or physician prescribed.</td>
<td>Carpenito-Moyet (2004)</td>
</tr>
<tr>
<td>Nursing minimum data set (NMDS)</td>
<td>A minimum set of elements of information with uniform definitions and categories concerning the specific dimensions of nursing, which meets the information needs of multiple data users in the health care system.</td>
<td>Delaney et al (2003)</td>
</tr>
<tr>
<td>Nursing outcomes</td>
<td>No specific definition identified but can be described as the consequences of one or more nursing intervention. The term nursing-sensitive outcomes is also used.</td>
<td></td>
</tr>
<tr>
<td>Nurse-sensitive</td>
<td>A nurse-sensitive patient outcome is ... a variable patient or family care-giver state, behaviour or perception that is responsive to a nursing intervention.</td>
<td>Wong et al (2000 p29)</td>
</tr>
<tr>
<td>Nursing-sensitive</td>
<td>Nursing-sensitive indicators ... are sensitive to the input of nursing care [...] have a high degree of specificity to nursing [and] have the ability to be tracked and widely regarded as having strong links to nursing quality.</td>
<td>Gallagher &amp; Rowell (2003)</td>
</tr>
</tbody>
</table>

The term nursing intervention has its origins in the North American nursing literature and work is on-going in the development of Nursing Interventions Classification (NIC) and Nursing Outcomes Classification (NOC). The Centre for Nursing Classification and Clinical Effectiveness (CNCCE) at the University of Iowa, USA ascribes the following strengths to the NIC system that has developed in North America:

- It is comprehensive in that it "includes the full range of nursing interventions from general practice and specialty areas; interventions include physiological and psychosocial, illness treatment and prevention, health promotion, those for individuals, families and communities, and indirect care; both independent and collaborative interventions are included; can be used in any practice setting regardless of philosophical orientation."

- It is research-based. The research which began in 1987 used a multi-method approach; methods include content analysis, questionnaire survey to experts, focus group review, similarity analysis, hierarchical clustering, multidimensional scaling, and clinical field testing.

- It was developed inductively based on existing practice. Original sources were current textbooks, care planning guides, nursing information systems from clinical practice augmented by clinical practice expertise of team members and experts in specialty areas of practice.

- It reflects current clinical practice and research. All interventions are accompanied by a list of background readings that support the development of the intervention; all interventions have been reviewed by experts in clinical practice.
and by relevant clinical practice specialty organisations; and a feedback process to receive suggested changes has been developed.

• It has an easy to use organizing structure (domains, classes, interventions, activities). All domains, classes and interventions have definitions; principles have been developed to maintain consistency and cohesion within the classification; and interventions are numerically coded.

• It uses language that is clear and clinically meaningful. Throughout the work, the language most useful in clinical practice has been selected; language reflects clarity in conceptual issues (e.g., what’s an intervention versus a diagnosis or an assessment to make a diagnosis, or an outcome).

• It was developed by a large and diverse research team. Team members represent multiple areas of clinical and methodological expertise.

• It has been and is being field tested. Clinical and educational agencies have begun to implement the classification; steps for implementation have been developed to assist in the change process.

• It is accessible through a growing number of publications.

• It is linked to NANDA nursing diagnoses.

• It has been widely recognised within the USA. This includes recognition by American Nurses’ Association, inclusion in Metathesaurus for a Unified Medical Language by National Library of Medicine, added to indexes of CINAHL and Silver Platter, listed by JCAHO as one classification that can be used to meet the standard on uniform data, focus of video by National League for Nursing, and is an integral part of International Council of Nursing’s International Classification of Nursing Practice (University of Iowa College of Nursing website 2004).

Some examples of nursing (and midwifery) interventions given by the CNCCE are:

• Anaesthesia Administration: Preparation for and administration of anaesthetic agents and monitoring of patient responsiveness during administration

• Behaviour Management (Overactivity/Inattention): Provision of a therapeutic environment that safely accommodates the patient’s attention deficit and/or over-activity while promoting optimal function

• Body Image Enhancement: Improving a patient’s conscious and unconscious perceptions and attitudes toward his/her body

• Cardiac Care (Acute): Limitation of complications for a patient recently experiencing an episode of an imbalance between myocardial oxygen supply and demand resulting in impaired cardiac function

• Case Management: Co-ordinating care and advocating for specified individuals and patient populations across settings to reduce cost, reduce resource use, improve quality of health care, and achieve desired outcomes

• Cast Care (Wet): Care of a new cast during the drying period

• Communication Enhancement (Visual Deficit): Assistance in accepting and learning alternate methods for living with diminished vision

• Community Health Development: Assisting members of a community to identify a community’s health concerns, mobilise resources, and implement solutions

• Dementia Management (Bathing): Reduction of aggressive behaviour during cleaning of the body

• Documentation: Recording of pertinent patient data in a clinical record

• Electronic Foetal Monitoring (Ante-partum): Electronic evaluation of foetal heart rate response to movement, external stimuli, or uterine contractions during ante-partal testing

• Health Policy Monitoring: Surveillance and influence of government and organisation regulations, rules, and standards that affect nursing systems and practices to ensure quality care of patients (Dochterman and Bulechek 2004).

Originating in Europe, the International Classification for Nursing Practice (ICNP) serves a similar purpose (see Box 2.2).
Box 2.2. International Classification for Nursing Practice

The ICNP is a combinatorial terminology for nursing practice that facilitates cross-mapping of local terms and existing vocabularies and classifications.

Elements of the ICNP:

Nursing Phenomena (nursing diagnoses)
Nursing Actions (nursing interventions)
Nursing Outcomes

The benefits of the ICNP are:

- Establish a common language for describing nursing practice in order to improve communication among nurses, and between nurses and others
- Represent concepts used in local practice, across languages and specialty area
- Describe the nursing care of people (individuals, families and communities) worldwide
- Enable comparison of nursing data across client populations, settings, geographical areas and time
- Stimulate nursing research through links to data available in nursing and health information systems
- Provide data about nursing practice in order to influence nursing education and health policy making
- Project trends in patient needs, provision of nursing treatments, resource utilisation and outcomes of nursing care


Systems such as NIC and NOC and the ICNP and associations such as ACENDIO (Association for Common European Nursing Diagnoses, Interventions and Outcomes) have contributed to the standardisation of nursing language, the aims of standardisation being to:

- Facilitate communication between nurses (and with other disciplines) about and across patients/clients and across settings
- Promote continuity of care
- Provide data that support visibility and credibility of nursing
- Enable documentation that will depict precisely what nurses do
- Offer ways to evaluate the effectiveness of nursing care
- Lead to better allocation of resources
- Identify the most effective nursing interventions
- Facilitate measurement of nursing outcomes
- Enable comparisons of nursing data from different locations and care settings

Both the CNCCE (University of Iowa) and the International Council of Nurses make similar claims about nursing minimum data sets (NMDs) concerning the benefits to nursing and midwifery (see Box 2.3).
Box 2.3. Benefits of Nursing Minimum Data Sets

**CENTRE FOR NURSING CLASSIFICATION AND CLINICAL EFFECTIVENESS**

- establish comparability of nursing data across clinical populations, settings, geographic areas, and time
- describe the nursing care of individuals, families and communities in a variety of settings
- demonstrate or project trends regarding nursing care provided and allocation of nursing resources to patients or clients according to their health problems or nursing diagnoses;
- stimulate nursing research through links to the data existing in health-care information systems;
- provide data and information about nursing care to influence practice, administrative, and health policy decision-making

**INTERNATIONAL COUNCIL OF NURSES**

- The contribution of nursing care and nurses is essential to health care globally. The I-NMDS as a key data set will support:
  - describing the human phenomena, nursing interventions, care outcomes, and resource consumption related to nursing services
  - enhancing the capacity of nursing and midwifery services
  - testing evidence-based practice improvements
  - improving the performance of health care systems and the nurses working within these systems worldwide
  - addressing the nursing shortage, inadequate working conditions, poor distribution and inappropriate utilisation of nursing personnel, and the challenges as well as opportunities of global technological innovations
  - empowering the public internationally

A synopsis of a project underway in Ireland to develop an Irish NMDS is shown in Box 2.4.

Box 2.4. Development of the Irish Nursing Minimum Data Set

In 2002 the Health Research Board granted funding for the first dedicated programme of nursing research in Ireland. Led by Prof P A Scott (Principal Investigator) and Prof Pearl Treacy (Co-Director), this programme brings together the research strengths of the School of Nursing at Dublin City University and the School of Nursing, Midwifery and Health Systems at University College, Dublin with the two-fold aim of developing an Irish Nursing Minimum Dataset (I-NMDS) and investigating nurses’ clinical judgement and decision-making (Hyde et al 2005, Butler et al 2006, Hyde et al 2006, MacNeela et al 2006, Irving et al 2006).

The main purpose of the I-NMDS is to record the nursing contribution to care, while presenting minimal resource demands for those tasked with I-NMDS completion. The I-NMDS development process involves carrying out rigorous research that is designed to identify the essential components of nursing care. Four separate research studies have been carried out to devise the I-NMDS. Research to date has involved:

1. analysis of nursing records
2. focus group discussions to identify the nursing contribution to care
3. reviews of the relevant literature and
4. a three-round Delphi survey.

Approximately 450 nurses working in mental health and general nursing in Ireland have taken part in the research to develop the I-NMDS form.

By July 2006 research findings had been synthesised to yield the first draft of the I-NMDS. This comprised four distinct sections referring to demographics, patient problems, nursing interventions, and co-ordination and organisation of care activities. Having established a draft I-NMDS tool the research team then commenced validation of the I-NMDS to ensure that it is a valid and reliable tool for use in clinical practice. The validation study has engaged nurses working in the provision of direct nursing care from fifteen hospitals across Ireland. Nurses participating in the validation process represented mental health, oncology, medical, surgical and cardiology-related nursing services. The first completed
As seen in the examples from the CNCCE above, there is a wide variety of possible nursing (and midwifery) interventions. The range and selection of interventions used will vary depending on the setting in which care is provided and on the needs of specific patients/clients or patient/client groups. For example, the types of setting in which older people receive nursing can vary in size, services offered and case mix of clients (Gaugler 2005). Examples of different international perspectives on nursing interventions are shown in Appendix 4.

A preliminary review of the nursing and midwifery literature carried out in preparation for this project found that nurses and midwives were identifying their interventions and/or measuring the outcomes of their interventions. Appendix 1 contains a selection of synopsised articles using the headings: Author, Year, Title, Country; Type of document; Setting, Type of Patients, Presenting Condition; Study Design, Summary Description; Selective Findings, Discussion; Outcome Variables Measured; Instrument Used; and Outcomes Measured (other sources may be identified within the Bibliography of this document). This selection represents nursing and midwifery interventions carried out in various settings and with diverse patient/client groups. It shows that in many instances nurses and midwives carry out interventions with reference to data-gathering instruments such as the Beck Depression Inventory (Melynk et al 2001), the Premature Infant Pain Profile (Stevens et al 1999) and the Palliative Care Outcomes Scale (Hughes et al 2004). Common outcomes identified in these studies include length of hospital stay and relate to management of symptoms (e.g., pain), audit of patient satisfaction, rehabilitation and effectiveness of education interventions. These reflect the major areas of practice outcomes suggested elsewhere in relation to advanced practice (Burns 2001), namely satisfaction (the patient’s, the family’s, the care-giver’s and the physician’s), clinical outcomes, efficiency or time-saving outcomes, financial outcomes and hospital benchmark data. Measurement of specifically selected outcomes may assist nurses and midwives to demonstrate their effectiveness in these areas.

Identification of nursing and midwifery interventions, intervention and outcomes classification systems and the practice of documenting these are not without their critics and difficulties. Some specific areas of care may require a broad and complex range of interventions: for example, the area of spiritual care (Cavendish et al 2003), the provision of information concerning the influence of gynaecological cancer on sexuality to patients and their partners (van Meijel et al 2004) and quality of life (Gaugler 2005). However, some interventions specific to these areas of care may not have been made sufficiently explicit in certain classification systems. Another criticism is that the delivery of certain types of care may depend on individual nurses’ or midwives’ views (Cavendish et al 2003). Furthermore nurses’ and midwives’ perceptions of the interventions they make and the factors affecting them may contrast with patients’/clients’ perceptions (Cavendish et al 2003; Oléni et al 2004). For example, nurses may overestimate the degree of pain, lack of appetite and insomnia experienced by patients (Holmes and Eburn 1989, cited by Oléni et al 2004).

**Intervention Classification Systems**

Implementation of classification systems has proven challenging due to the difficulties associated with using the standardised languages along with “historical native terminology”, issues arising from incorporating terms in computerised documentation systems and inexperience with using new terminologies to describe practice (Behrenbeck et al 2005). Van Achterberg et al (2005) have also argued that the introduction of nursing intervention classification systems can contribute to the “isolation of nurses from the larger group of health care professionals” and claim that the use of the International Classification of Functioning, Disability and Health has the capacity to reduce the variety of terms used and to improve multidisciplinary communication in both care and research because of its World Health Organisation status (p440).

**Documenting Interventions**

There has been some debate around the actual method of documenting nursing and midwifery interventions. Proponents of information and communications technology systems point out that electronic systems prevent the communication difficulties and risks to patients caused by poor hand-writing (Dimond 2005). The development of electronic systems may also influence and be influenced by the development of standardised terminology and abbreviations throughout health care settings and systems, but difficulties in the use of electronic may still arise from insufficient resources and training (Oxtoby 2004). An increase in the complexity of patients’ health problems, nursing and midwifery workload, the increase in the amount of data available and patients’ participation in the decision-making can present challenges to nursing and midwifery care and to the accuracy of its documentation (Fonteyn and Cooper 1994, cited in Kärkkäinen and Eriksson 2005). In one Finnish study (Kärkkäinen and Eriksson 2005) it was found that medical orders, reporting of changes in patients’ conditions to doctors,
Quality in Healthcare

One of the most important developments in healthcare over the past decade has been "a popular awakening to problems of quality" (OECD 2004 p 13). Donabedian (1966, 1980, 1985) is acknowledged to have been the first to recognise that healthcare should be viewed as a system and to divide measures of the quality of healthcare in structures, processes and outcomes (Best and Neuhauser 2004). The rise of consumerism, the media and the Internet have all been credited with enabling the public to become better informed and more critical, and this in turn has influenced quality initiatives and their development. Many countries have started to monitor indicators of healthcare quality, often for benchmarking purposes as part of broader efforts to track and improve health-system performance. In most countries, attention has focused initially on the quality of hospital care, but initiatives to evaluate other health and long-term care settings are also under way. Such efforts can be strengthened by developing tools such as clinical practice guidelines and performance standards that promote evidence-based practice (OECD 2004). Another significant influence on the development of quality assurance has been the growing sophistication of patients/clients and their advocates, necessitating "a view of the patient as an active participant rather than a passive recipient" (Office for Health Management 2002 p5).

Better systems for recording and tracking data on patients/clients, health and healthcare are deemed to be essential components of quality improvement (Gallagher 2005). Automated health information systems are regarded as more effective than paper records, particularly with regard to their impact on healthcare quality, cost, accuracy, access and sharing of information (OECD 2004; National Committee for Quality Assurance 2004). Tools and strategies for healthcare quality and improvement include national policy, indicator frameworks to benchmark providers and the creation of new institutions to monitor and improve quality (e.g., National Committee for Quality Assurance in the USA, Commission for Health Improvement in the UK). Translated to service level, these become total quality and continuous quality improvement programmes, collaborative teams, external review and accreditation programmes and guidelines for changing practice (Øverteit and Gustafson 2003).
Clinical Governance

Clinical governance has been another important development in international healthcare systems. It is defined as "a system through which [National Health Service] organisations are accountable for continuously improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish" (Scally and Donaldson 1998). Introduced in the National Health Service (NHS) in the UK in the 1990s, it was promoted as a means of ensuring quality improvement (Dept of Health 1998) and has also been used to promote enhanced performance by clinicians and the healthcare system (Cullen, Nicholls and Halligan 2001). It has been argued that in settings where social care also plays a role (e.g., mental health and intellectual disability services) clinical governance arrangements should be different to those in mainstream health services (Ford and Wakeling 2004).

Accreditation

Another strand of quality improvement in healthcare systems and services is participation in accreditation programmes. The notion of accrediting suitable environments in medicine dates back approximately ninety years, but has gathered momentum since the late 1980s and there are now numerous organisations providing accreditation services. The common features and processes of accreditation programmes may include the following:

• The aim of participation in accreditation programmes is to ensure that high standards of care and/or service are provided to patients and service users.

• Participation in accreditation programmes is voluntary and participating hospitals or services may set their own time-frames for meeting accreditation requirements.

• The standards for accreditation are developed to address such areas as the clinical and corporate governance agendas, improved clinical effectiveness, enhanced communication between services and departments, team building and motivation, and risk management and controls assurance.

• Standards for accreditation are usually developed through research with healthcare organisations to identify good practice initiatives and with reference to current relevant legislation and professional guidance and provide a framework for the effective delivery of healthcare. They may be reviewed at an agreed stage.

• Participating hospitals or services may assess themselves against the standards or agree to be assessed by independent assessors with expertise in the relevant areas.

• Accreditation may be awarded for a fixed term on the understanding that the participating hospital or service continues to comply with the standards or may be withheld by an independent assessment board if the hospital or service does not meet a defined threshold of standards.

Audit

Audit is yet another strand of quality assurance within hospitals. It aims to improve outcomes for patients and service users while at the same time developing a more cost-effective use of resources and to have an educational function for health professionals (Øvretveit 1998). In theory, it should lead to change in clinical practice by encouraging a reflective culture of reviewing current practice, and by inducing changes which lead to better patient outcomes and satisfaction. Clinical audit may be conducted by individual healthcare staff or on a multidisciplinary basis and involves collecting information to review diagnosis and the procedures used for diagnosis, clinical decisions about the treatment, use of resources and patient outcomes (National Institute for Clinical Excellence 2002).

Quality improvement initiatives and programmes require the close collaboration of all staff working in health services. While certain aspects and tasks of quality improvement programmes may be developed and/or assigned to specific disciplines, their overall aim remains the enhancement of the services and care delivered to patients/clients and their families or carers. Although generally multidisciplinary by their nature, quality improvement programmes have created heightened awareness among nurses and midwives of their public accountability and of the need to become more informed about the measurement, improvement and benchmarking of clinical costs, quality and outcomes specific to nursing and midwifery (Gallagher 2005).

Overview of Quality-Focused Developments in Ireland

One of the guiding principles of the current national health strategy Quality and Fairness – A Health System for You is quality (DoHC 2001). Quality and Fairness proposed a number of objectives concerned with standardising quality systems to best support patient care and safety (see Actions 63-73). The health strategy indicated that quality systems in the Irish health service would be integrated and expanded throughout the health system by means of national standards and protocols for quality of care, patient safety and risk management to be drawn up for all health and personal social services. However, concerns have been expressed about the capacity for evaluation within the Irish health system and consequently the ability to ensure that the
policy achieves its goals (Butler 2002). Nevertheless, the Health Service Executive’s (HSE) Corporate Plan for the period 2005–2008 aims to maximise the level and quality of health services in Ireland, while delivering a more responsive, adaptable health system that meets the needs of the population effectively and at an affordable cost (HSE 2005). Key strategies for ensuring the quality and cost-effectiveness of the health service include fostering a culture of review and audit, strengthening accountability and prioritising effective team-working. Other agencies concerned with promoting and ensuring quality in the Irish health system and services include the (interim) Health Information and Quality Authority (HIQA), the Mental Health Commission and the National Disability Authority.

There has been increasing awareness in Ireland of clinical governance in recent years, with some services and organisations already implementing frameworks which make them accountable for continually improving the quality of their services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish. A whole system process includes all disciplines involved in patient/client care. Features identified include patient-/client-centred care, good information, and reduced risks and hazards to patients (DoHC 2003).

A hospital accreditation programme had been introduced in a number of the major acute teaching hospitals prior to the publication of *Quality and Fairness* (DoHC 2001), but the health strategy indicated this would be extended to include all hospitals, both public and private. The Irish Health Service Accreditation Board (IHSAB), which was set up in 2002, is an independent organisation whose primary purpose is to establish, continuously review and operate an accreditation scheme for the Irish health system within a quality improvement framework (see Box 2.5). It will be integrated within the Health Information and Quality Authority when this is fully established.

**Box 2.5. Key functions of the Irish Health Service Accreditation Board**

(From Section 5 of the Establishment Order (Statutory Instrument No. 160 of 2002)

(a) To operate hospital accreditation programmes and to grant accreditation to hospitals meeting standards set or recognised by the Board;

(b) To operate accreditation programmes in respect of such providers of other health services as may, from time to time, be deemed appropriate by the Minister [for Health and Children] after consultation with the Board, and to grant accreditation to such providers meeting standards set or recognised by the Board;

(c) To operate such other schemes aimed at ensuring quality in the provision of health services as may, from time to time, be deemed appropriate by the Minister after consultation with the Board;

(d) To do such other things as are incidental or conducive to carrying out the functions as set out above.

According to IHSAB’s website, accreditation “guides healthcare organisations in identifying their strengths and also their opportunities for improvement and to better understand the objectives and complexities of their operations. With this knowledge, organisations can address short and longer-term plans to improve their performance and use their resources to most effectively meet needs. Accreditation seeks out organisations which not only provide an adequate level of care to its patients/clients but which can be identified as a centre of excellence in all aspects of the safety and quality of care provided” (IHSAB website 2005). Accreditation of hospitals located in and services provided by the acute services began in 2002. By December 2004 eighty per cent of public acute care hospitals were utilising IHSAB’s quality and safety framework and plans were being prepared to expand the framework to other health service entities (IHSAB 2005).

There is evidence of nurses’ and midwives’ participation in quality improvement programmes in Ireland. The National Council funds continuing education programmes (see *Criteria and Processes for the Allocation of Additional Funding for Continuing Education*, National Council 2001) and a review of the applications indicates that nurses and midwives in Ireland are participating in and leading activities relating to health service quality improvement. Examples of these activities can be see in the National Council’s annual reports and on the website (www.ncnm.ie).

**Summary**

Nurses and midwives have the potential to carry out a wide range of interventions in a variety of health care settings and with patients and clients with varying and diverse needs. The main areas of interventions identified in the literature are patient satisfaction and clinical outcomes. By identifying their interventions and measuring the outcomes of these interventions, it is suggested that nurses and midwives can articulate and clarify their roles and functions in relation to both the settings in which they work and the patients and clients to whom they deliver services and care. Documenting and reviewing nursing and midwifery interventions may assist nurses and midwives to demonstrate greater levels of accountability for their practice while at the same time enhancing communication with other health and social care professionals and health service staff about the their
contribution to the patient and client care and to the health service overall. In the current climate of health service reform taking place internationally and nationally, many nursing and midwifery interventions are and will be driven by the quality improvement agenda. Health service quality assurance strategies and tools draw upon data gathered by all members of the healthcare team. Nevertheless, it is clear that nurses and midwives are taking the initiative and providing evidence of the outcomes resulting from their actions.
The findings from the questionnaire survey and focus groups discussions are presented in this chapter. The themes emerging from the findings centred around the survey respondents’ and focus group discussion participants’ understanding of the concept nursing and midwifery interventions and outcomes measurement, their experience of participation in a quality improvement programme, their views on and experience use of instruments, scales and/or assessment tools for measuring the outcomes of interventions, the role of training in the use of instruments, scales and/or assessment tools and the role of the National Council. Specific quotes from the questionnaires and focus groups are presented to augment the quantitative data.

**Concept of Nursing and Midwifery Interventions and Outcomes**

A wide range of instruments, scales and assessment tools were identified in response to the questionnaire (see Appendix 2) and these included references to nursing and midwifery audit. Therefore, in order to explore the understanding of the term nursing and midwifery interventions and outcomes focus group participants were asked to detail their understanding of the terms. The working groups at the six focus group sessions approached the question relating to nursing and midwifery interventions in different ways. Some descriptions of nursing and midwifery interventions which focused on the interaction (including different levels of interaction) between nurses and midwives and their patients or clients are reported below:

“Any nursing and midwifery interactions with patients (e.g., communication and observation) that include a holistic approach taking into account the physical, psychological, social and spiritual aspects of the intervention.”

(“An intervention is a meaningful engagement with clients either on a one-to-one basis, within groups or families through therapeutic relationships or crisis interventions.”)

(Mental health group)

“Any contact with the patient … based on nursing and midwifery assessment.”

(Education group)

One group referred only to nurses’ actions: “All interventions, care, activities provided by nursing staff that includes assessing, planning, implementation and evaluation … Actions of nurses and midwives in the delivery of services.”

Two groups specified that nursing and midwifery interventions were distinct from those of other healthcare professionals: such interventions were based on “decisions taken by the nursing and midwifery profession[s] as opposed to a medical assessment” or were “actions not prescribed by other professions” (Education group). Another group, however, described nursing interventions in the context of multidisciplinary service provision: “Any point of contact with an individual including the patient, multidisciplinary team, relatives and family and other services in healthcare delivery.”

Rather than attempting to define interventions and outcomes, two groups reported what it considered to be examples of nursing and midwifery interventions such as admission and discharge, administration of medications, psychological education, psychodynamic interventions, psychotherapy or reality therapy. With reference to direct and indirect care the midwifery working group categorised midwifery interventions as relating to stages of pregnancy and labour including antenatal, intra-partum and post-partum. Antenatal interventions were specified as audit of an early pregnancy unit (with a view to extending its opening hours), research into women’s experiences of urodynamic studies and antenatal education. Interventions specific to the intra- and post-partum stages were respectively: holistic care of the patient in labour and her family, episiotomy and hygiene audit; and women’s experiences of urodynamic studies and breast-feeding interventions. The midwifery group listed a number of hospital-wide activities in relation to midwifery interventions including audits, questionnaires, patient/client satisfaction surveys, clinical reports.

One group commented that care plans “should be the fundamental base for all interventions,” while the education group drew attention to the need for interventions to be “informed by empirical knowledge.”

“They are used for diagnosis and to indicate treatment but they do not measure the outcome of the intervention while determining the intervention.”

Director of public health nursing.

2 The terms respondents and participants will be used to denote the respondents to the questionnaire survey and the participants in the focus group discussions respectively.
“We have found the wound assessment form an excellent tool in terms of assessment …”
Clinical nurse/midwife manager, community/primary care service.

“Our assessment tools are used to assess degree of disability, depression, etc, and not to measure the outcome of service.”
Director of nursing, community/primary care service.

“Some assessments are part of the process which leads to actions rather than outcomes in themselves … Specifying the use of the tool at stage level related to outcome is a useful development.”
Nursing practice development co-ordinator, general hospital.

“We are currently working on developing a nursing portfolio of assessment tools which will standardise the tools being used. Some of these are diagnostic, some are for evaluating outcomes, progress, etc.”
Nursing practice development co-ordinator, psychiatric hospital/service.

“Many areas use guideline (national/international) for evidence-based practices - e.g., NICE guidelines for antenatal/care/delivery. Practices are based on these rather than outcomes. Audit of all services is carried out and presented in the annual reports - a measure of clinical outcome. Student assessments are carried out at all ward levels.”
Clinical practice development co-ordinator, obstetric/midwifery hospital/care setting.

“The assessment tools in use are designed by the organisation for audit purposes.”
Nursing practice development co-ordinator, palliative/elderly care service.

Concept of Audit
Audit had been identified by the respondents as an instrument, scale and/or assessment tool used within their organisations or services. The understanding and experience of audit was therefore explored with the focus groups. A total of fifty-four items were listed by the participants, including identical or similar items listed by the different working groups. Generally these items comprised named audit or monitoring systems (e.g., ISO 9000, QUASAR, National Hygiene Audit) or areas of practice or service that could be or were audited (e.g., admission and discharge rates, nursing documentation, patient dependency, Caesarian section rates). A selection of some of the items and areas identified is shown in Box 3.1.

Box 3.1. Areas of Practice and/or Service Audited Identified by the Focus Group Participants

<table>
<thead>
<tr>
<th>Area of Practice</th>
<th>Area of Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admission and discharge rates</td>
<td>Length of stay</td>
</tr>
<tr>
<td>Ante-natal education</td>
<td>Medication monitoring</td>
</tr>
<tr>
<td>Breast-feeding rates</td>
<td>Neonatal blood transfusion rates</td>
</tr>
<tr>
<td>Caesarean section rates</td>
<td>Nursing documentation</td>
</tr>
<tr>
<td>Clinical learning environment</td>
<td>Patient satisfaction</td>
</tr>
<tr>
<td>Communication</td>
<td>Pressure sore tools</td>
</tr>
<tr>
<td>Continence</td>
<td>Risk management</td>
</tr>
<tr>
<td>Documentation</td>
<td>Special observations</td>
</tr>
<tr>
<td>Epidural rates</td>
<td>Staff satisfaction</td>
</tr>
<tr>
<td>Episiotomy rates</td>
<td>Syringe usage</td>
</tr>
<tr>
<td>Extension of opening hours in an early pregnancy unit</td>
<td>Teenage ante-natal clinics</td>
</tr>
<tr>
<td>Fall prevention</td>
<td>Visiting hours</td>
</tr>
<tr>
<td>Holistic care of the patient in labour</td>
<td>Ward meetings</td>
</tr>
<tr>
<td>Hygiene</td>
<td>Waste management</td>
</tr>
<tr>
<td>Infection control</td>
<td>Wound management</td>
</tr>
</tbody>
</table>
In addition several comments were made about the purposes, benefits and drawbacks of audit. It was generally agreed that audit was used to monitor nursing and midwifery practice and healthcare delivery throughout the healthcare organisation, as well as measuring specific practices, while at the same time allowing comparison of current practices with best international practice. By monitoring practice and acting upon the results of audit, opportunities were created for a “cycle of continuous improvement” of patient care. It was recognised, however, that quality of life issues were often difficult to monitor.

In the experience of the participants from practice/service settings audit was generally conducted across the organisation, involved a multidisciplinary approach and was perceived as benefiting the health service as a whole. Organisation-wide audit and audit schemes were seen as being “the catalyst for appropriate changes”, sometimes taking priority over the use of nursing and midwifery tools and the measurement and analysis of their use. Definite disadvantages of whole-organisation audit measures included the possible inclination for nurses and midwives to give priority to those aspects of their work that would be subject to audit, particularly where time was limited, thus neglecting the qualitative aspects of their work. Practitioners’ fear of and “resistance” to participating in audit was commented on, with the education group stating that these difficulties might arise from the perceived difficulty in using software tools such as QUASAR. The lack of secretarial support was identified as hindering the implementation of audit as was the lack of training. The mental health group, however, referred to the positive impact that training had had in one area, and also noted the importance of support from the multidisciplinary team.

**Participation in a Quality Improvement Programme**

In order to explore the level of involvement of nurses and midwives in Ireland in quality assurance programmes, questionnaire recipients were asked whether or not their organisation or service was participating in a quality improvement or similar programme. Seventy-two respondents out of the 158 who responded (45.6%) stated that their organisation or service was participating (see Table 3.1).

**Table 3.1. Types and Total Numbers of Organisations/Service Providers Participating in Quality Improvement (QI) Programmes**

<table>
<thead>
<tr>
<th>CARE SETTING</th>
<th>TOTAL NUMBERS RESPONDING TO QUESTIONNAIRE</th>
<th>NUMBER OF CARE SETTINGS PARTICIPATING IN QI PROGRAMME</th>
<th>PERCENTAGE OF CARE SETTINGS PARTICIPATING IN QI PROGRAMME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Hospital/Care Setting</td>
<td>2 (1.3%)</td>
<td>2 (1.3%)</td>
<td>100.0</td>
</tr>
<tr>
<td>Community/Primary Care Service</td>
<td>22 (13.9%)</td>
<td>5 (3.2%)</td>
<td>25.0</td>
</tr>
<tr>
<td>General Hospital</td>
<td>25 (15.8%)</td>
<td>20 (12.7%)</td>
<td>80.0</td>
</tr>
<tr>
<td>Intellectual Disability Service</td>
<td>10 (6.3%)</td>
<td>4 (2.5%)</td>
<td>40.0</td>
</tr>
<tr>
<td>Obstetric/Midwifery Hospital/Care Setting</td>
<td>5 (3.2%)</td>
<td>5 (3.2%)</td>
<td>100.0</td>
</tr>
<tr>
<td>Older Person Care Setting</td>
<td>64 (40.5%)</td>
<td>20 (12.7%)</td>
<td>31.7</td>
</tr>
<tr>
<td>Psychiatric Hospital/Service</td>
<td>10 (6.3%)</td>
<td>6 (3.8%)</td>
<td>60.0</td>
</tr>
<tr>
<td>Other</td>
<td>20 (12.7%)</td>
<td>10 (6.3%)</td>
<td>50.0</td>
</tr>
<tr>
<td>Do not participate in QI programmes</td>
<td>-</td>
<td>86 (54.4%)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>158 (100%)</td>
<td>158 (100%)</td>
<td>-</td>
</tr>
</tbody>
</table>

Fifteen of the eighteen respondents (83.3%) indicating that they were working in “band 1 services/organisations” reported that their service was participating in a quality improvement programme, as did 13 (72.2%) of those indicating that they were working in “band 2 services/organisations”. Half of those indicating that they were working in “band 3 services/organisations” (n=9) reported that they were participating in such programmes, while it was reported that only 39.1%, 29.6% and 25.0% of “band 3”, “band 4” and “other” services organisations respectively were doing so.

Of the seventy-two respondents who reported that their organisation or service was participating in a quality improvement programme, sixty-six named the programmes, with two naming two programmes (see Table 3.2).
Table 3.2. Name of Quality Improvement Programme in which Service Provider/Organisation Participating

<table>
<thead>
<tr>
<th>NAME OF QUALITY IMPROVEMENT PROGRAMME</th>
<th>FREQUENCY</th>
<th>PER CENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHSAB (Irish Health Service Accreditation Board)</td>
<td>23</td>
<td>34.8</td>
</tr>
<tr>
<td>Essence of Care (NHS Patient-Focused Benchmarks for Clinical Governance)</td>
<td>9</td>
<td>13.6</td>
</tr>
<tr>
<td>ISO (International Organisation for Standardisation)</td>
<td>5</td>
<td>7.6</td>
</tr>
<tr>
<td>JCI (Joint Commission International)</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>HPH (Health Promoting Hospitals)</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Other</td>
<td>22</td>
<td>33.3</td>
</tr>
<tr>
<td>IHSAB &amp; BFHI (Baby-Friendly Hospitals Initiative)</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Five respondents did not name the quality improvement programme while a further five merely stated “accreditation” without identifying the programme more specifically; the terms “HQS accreditation,” “accreditation hygiene audit,” “accreditation process” and “accreditation programme” were also used. Other programmes referred to were “cared-for quality initiative (to meet NDA [National Disability Authority] standards),” “Dept of Psychiatry in [named] Hospital . . .,” “Excellence Ireland [Quality Association],” “Irish Nursing Homes Organisation,” “National Quality Award,” “Laboratory,” “Quality Assurance EU Directive/Audited By Irish Medicines Board,” “Personal Outcomes Measures,” “Practice [Development] Unit,” and “Pilot Programme [or Site] for Accreditation.” Comments made in response to this part of the question were “Just about to start” and “Presently looking at systems.”

Accreditation Schemes and Quality Initiatives

The experience of accreditation schemes and other quality initiatives was explored in the focus groups. The participants identified those agencies whose initiatives they were aware of or those that were currently in use within their services, namely the Irish Health Services Accreditation Board, the National Disability Authority [National Standards for Disability Services] and the Joint Council on Accreditation of Health Organisations. Several groups stated that audit was an integral part of accreditation activity in relation to hygiene, documentation and communication, for example, but other activities were also identified, namely self-assessment and team management. The mental health group referred to specific service developments such as the introduction of the Tidal Model of Care in mental health and Refocusing Psychiatry (a project funded by the National Council).

In the wider discussions about quality initiatives, the participants suggested that these initiatives were used to monitor activity, assess patient satisfaction and undertake annual reviews such as falls prevention and incidents. Overall, participation in accreditation schemes was viewed favourably as it had contributed to: the development of policies and guidelines; the correct completion of documentation; enhanced multidisciplinary team-working; continuous improvements in standards and quality; and increased morale among staff. One working group commented that participation in accreditation schemes had provided “measured outcomes” for patients who now knew “they are getting the best” while another group pointed out that it sometimes took time for staff to recognise the benefits.

Less favourable aspects of participation in accreditation schemes included the greater workload for staff at ward-level, a tendency for it to be viewed as “a paper trail” and giving rise to “a helicopter view” of the organisation or institution. Comments concerning enhancing the impact of accreditation included the need “to take a systematic approach that generates and increases accountability.”

Use of Instruments, Scales and/or Assessment Tools for Measuring the Outcomes of Interventions

The majority of respondents indicated that they used instruments, scales or assessment tools to measure the outcomes of nursing, midwifery, multidisciplinary/interdisciplinary or other interventions (n=129/158, 81.7%). The numbers and percentages of the different types of care settings using or not using tools for measuring the outcomes of nursing and midwifery interventions are shown in Table 3.3 below.
Table 3.3. Care Setting Using Tools

<table>
<thead>
<tr>
<th>CARE SETTING</th>
<th>TOTAL NUMBERS RESPONDING TO QUESTIONNAIRE</th>
<th>NUMBER OF CARE SETTINGS USING TOOLS</th>
<th>PERCENTAGE OF USING TOOLS WITH CARE SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s Hospital/Care Setting</td>
<td>2 (1.3%)</td>
<td>2 (1.3%)</td>
<td>100</td>
</tr>
<tr>
<td>Community/Primary Care Service</td>
<td>22 (13.9%)</td>
<td>14 (8.9%)</td>
<td>63.6</td>
</tr>
<tr>
<td>General Hospital</td>
<td>25 (15.8%)</td>
<td>21 (13.3%)</td>
<td>84.0</td>
</tr>
<tr>
<td>Intellectual Disability Service</td>
<td>10 (6.3%)</td>
<td>9 (5.7%)</td>
<td>90.0</td>
</tr>
<tr>
<td>Obstetric/Midwifery Hospital/Care Setting</td>
<td>5 (3.2%)</td>
<td>5 (3.2%)</td>
<td>100</td>
</tr>
<tr>
<td>Older Person Care Setting</td>
<td>64 (40.5%)</td>
<td>57 (36.1%)</td>
<td>89.1</td>
</tr>
<tr>
<td>Psychiatric Hospital/Service</td>
<td>10 (6.3%)</td>
<td>7 (4.4%)</td>
<td>70.0</td>
</tr>
<tr>
<td>Other</td>
<td>20 (12.7%)</td>
<td>14 (8.9%)</td>
<td>70</td>
</tr>
<tr>
<td>Did not use tools</td>
<td>-</td>
<td>29 (18.4%)</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>158 (100%)</td>
<td>158 (100%)</td>
<td>-</td>
</tr>
</tbody>
</table>

Of those who indicated that instruments, scales or assessment tools were used within their organisations or services, the respondents reported that 621 (65.9%) were used throughout the organisation and 291 (30.9%) were used in specialised areas only (it should be noted that they may not have indicated this for all items they identified); no extent of usage was indicated for 30 cases (3.2%).

“In our service we find the use of care plans, person-centred plans and behaviour monitoring charts as vital to measure the needs and abilities of our service users. They help us to identify behaviours, the cause of same and enhance their quality of life. They provide a clear plan for a consistent and cohesive staff approach.”
Clinical nurse manager, intellectual disability service.

“Very good for gathering information in organised manner.”
Director of nursing, older person care setting.

One hundred and twenty-nine respondents either named and/or stated the target of at least one instrument, scale or assessment tool used for measuring the outcomes of interventions. In total 942 instruments and/or their target was identified. The number of instruments, scales or assessment tools identified by each respondent ranged from 1 to 43 (mean = 6). Questionnaire respondents were asked to indicate whether the instruments, scales and/or assessment tools used to measure were nursing, midwifery, multidisciplinary and/or other types of intervention (see Table 3.4).

4 For example, two children’s hospitals responded and two children’s hospitals indicated that they used tools (100%).
The following comments were made with regard to the multidisciplinary nature of the work undertaken in their hospitals and services, and to collaborative working with other health and social care professionals.

“With [an] increasing focus on integrated care pathways, actual nursing outcomes will be difficult to separate.”
Nursing/midwifery practice development co-ordinator, general hospital.

“Universally accepted tools are very good to use in practice as they can be understood by all disciplines and organisations.”
Nursing/midwifery practice development co-ordinator, general hospital.

“The nutritional needs of our clients are assessed with the aid of [named malnutrition screening tool and with the] assistance of a nutritionist or dietician.”
Clinical nurse manager, older person care setting.

“We use our assessment tools as part of our new integrated multidisciplinary care plan introduced in the [named HSE area] and covering all care of the older person sites.”
Clinical nurse manager, older person care setting.

“Our treatment plan centres on the identification of ‘impairments’ …. These are measured on admission to the services and at each multidisciplinary team evaluation …”
Nursing practice development co-ordinator, psychiatric hospital/service.

**Stages at which Instruments, Scales or Assessment Tools Were Used**

It was most frequently reported that tools were used at the diagnosis, intervention and outcome stages (n=306, 32.4%) (see Table 3.5). Although the majority of instruments, scales or assessment tools (n=528) items were reported as being used at the outcomes stage (whether at that stage alone or in combination with other stages), it was reported that 395 were not used for measuring outcomes.
Table 3.5. Stages at which Instruments, Scales or Assessment Tools Were Used

<table>
<thead>
<tr>
<th>STAGE USED</th>
<th>RESPONSES</th>
<th>FREQUENCY</th>
<th>PER CENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>No stage used mentioned</td>
<td>19</td>
<td></td>
<td>2.0%</td>
</tr>
<tr>
<td>Used at diagnosis stage only</td>
<td>171</td>
<td></td>
<td>18.2%</td>
</tr>
<tr>
<td>Used at intervention stage only</td>
<td>92</td>
<td></td>
<td>9.8%</td>
</tr>
<tr>
<td>Used at outcome stage only</td>
<td>80</td>
<td></td>
<td>8.5%</td>
</tr>
<tr>
<td>Used at diagnosis and intervention stages only</td>
<td>132</td>
<td></td>
<td>14.0%</td>
</tr>
<tr>
<td>Used at diagnosis and outcome stages only</td>
<td>72</td>
<td></td>
<td>7.6%</td>
</tr>
<tr>
<td>Used at intervention and outcome stages only</td>
<td>70</td>
<td></td>
<td>7.4%</td>
</tr>
<tr>
<td>Used at diagnosis, intervention and outcome stages only</td>
<td>306</td>
<td></td>
<td>32.5%</td>
</tr>
<tr>
<td>Total</td>
<td>942</td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Method by which Instruments, Scales or Assessment Tools Were Completed

All 129 respondents indicated by which method the identified instruments, scales or assessment tools were completed (it should be noted that they may not have indicated this for all items they identified). It was reported that 791 (84.0%) instruments, scales or assessment tools were completed in writing only, 67 (7.1%) electronically only, and 50 (5.3%) both in writing and electronically; no completion method was mentioned for 34 items (3.6%) (see Figure 3.1).

Figure 3.1 Method of Completing Instruments, Scales or Assessment Tools

Frequency with which Instruments, Scales or Assessment Tools Were Completed

Of all 942 instruments, scales or assessment tools identified, 179 (19.0%) were reported as being completed daily only; 35 (3.7%) as being completed weekly only; 55 (5.8%) as being completed monthly only; and 549 (58.3%) were reported as being completed on an “other” basis only. Table 3.6 below shows how some instruments, scales or assessment tools were reported as being completed on more than one of frequencies stated on the questionnaire: this may reflect the respondents’ attempts to reflect accurately the frequency rate of the use of the instrument.
Table 3.6. The Frequency with which Instruments, Scales or Assessment Tools Were Completed

<table>
<thead>
<tr>
<th>FREQUENCY OF COMPLETION</th>
<th>NUMBER</th>
<th>PER CENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>No completion frequency mentioned</td>
<td>46</td>
<td>4.9%</td>
</tr>
<tr>
<td>Daily only</td>
<td>179</td>
<td>19.0%</td>
</tr>
<tr>
<td>Weekly only</td>
<td>35</td>
<td>3.7%</td>
</tr>
<tr>
<td>Monthly only</td>
<td>55</td>
<td>5.8%</td>
</tr>
<tr>
<td>Other only</td>
<td>549</td>
<td>58.3%</td>
</tr>
<tr>
<td>Daily and Weekly only</td>
<td>7</td>
<td>0.7%</td>
</tr>
<tr>
<td>Daily and Monthly only</td>
<td>2</td>
<td>0.2%</td>
</tr>
<tr>
<td>Daily and Other only</td>
<td>13</td>
<td>1.4%</td>
</tr>
<tr>
<td>Weekly and Monthly only</td>
<td>9</td>
<td>1.0%</td>
</tr>
<tr>
<td>Weekly and Other only</td>
<td>3</td>
<td>0.3%</td>
</tr>
<tr>
<td>Monthly and Other only</td>
<td>14</td>
<td>1.5%</td>
</tr>
<tr>
<td>Daily, Weekly and Monthly only</td>
<td>10</td>
<td>1.1%</td>
</tr>
<tr>
<td>Daily, Weekly and Other only</td>
<td>4</td>
<td>0.4%</td>
</tr>
<tr>
<td>Weekly, Monthly and Other only</td>
<td>7</td>
<td>0.7%</td>
</tr>
<tr>
<td>Daily, Weekly, Monthly and Other</td>
<td>10</td>
<td>1.1%</td>
</tr>
<tr>
<td>Total</td>
<td>942</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Tools to Measure Interventions and Outcomes

A total of 146 items were listed by the questionnaire respondents, including identical or similar items listed by the different working groups. Generally these items comprised either accurately or inaccurately named tools used for specific assessments or other purposes (e.g., Bristol Stool Guide, Edinburgh Post-Natal Depression Scale, Barthel Index), or else referred to the uses to which tools were or could be put (e.g., continence assessment, manual handling tools). The lack of tools for measuring the qualitative outcomes of nursing and midwifery interventions was noted. A full list of the items identified by the focus group participants is included in Appendix 5.

The respondents’ most frequently stated instruments, scales and assessment tools (either by name or target of the intervention) were the Waterlow pressure ulcer risk assessment/prevention policy tool (n = 50), a falls risk assessment tool (n = 25) and a pain management/assessment tool (n = 22). Their ten most frequently stated instruments, scales and assessment tools (either by name or target of the intervention) are shown in Box 3.2 below.

Box 3.2. Most Frequently Identified Instruments, Scales and Assessment Tools

<table>
<thead>
<tr>
<th>NAME OR INSTRUMENT (EITHER BY NAME OR TARGET OF INTERVENTION)</th>
<th>NUMBER OF RESPONDENTS IDENTIFYING INSTRUMENT, SCALE OR ASSESSMENT TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterlow Pressure Area Risk Assessment</td>
<td>50</td>
</tr>
<tr>
<td>Falls Risk Assessment (FRASE) Tool</td>
<td>25</td>
</tr>
<tr>
<td>Pain Management Tool</td>
<td>22</td>
</tr>
<tr>
<td>Barthel Index (for measuring patients’ independence in activities of daily living and mobility)</td>
<td>21</td>
</tr>
<tr>
<td>Mini-Mental State Examination (MMSE)/Test Score</td>
<td>18</td>
</tr>
<tr>
<td>Manual Handling Assessment Chart</td>
<td>15</td>
</tr>
<tr>
<td>Wound Assessment Tool</td>
<td>14</td>
</tr>
<tr>
<td>Continence Assessment Tool</td>
<td>11</td>
</tr>
<tr>
<td>Braden Scale (for predicting pressure sore risk)</td>
<td>10</td>
</tr>
<tr>
<td>Norton Scale (for predicting pressure sore risk)</td>
<td>9</td>
</tr>
<tr>
<td>Roper-Logan-Tierney Model</td>
<td>9</td>
</tr>
</tbody>
</table>
The more frequently stated intervention target areas across all care settings in which named instruments, scales and assessment tools were used were pressure area risk assessment/prediction and depression. The instruments named are shown in Box 3.3.

**Box 3.3. Target Intervention Areas and Instruments, Scales and Assessment Tools Used**

<table>
<thead>
<tr>
<th>INTERVENTION TARGET AREA</th>
<th>NAMES OF INSTRUMENTS, SCALES AND ASSESSMENT TOOLS USED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure area risk assessment/prediction</td>
<td>Waterlow Pressure Area Risk Assessment</td>
</tr>
<tr>
<td></td>
<td>Braden Scale</td>
</tr>
<tr>
<td></td>
<td>Norton Scale</td>
</tr>
<tr>
<td></td>
<td>Medley Score</td>
</tr>
<tr>
<td></td>
<td>European Pressure Ulcer Advisory Panel (EPUAP) Guidelines</td>
</tr>
<tr>
<td>Depression</td>
<td>Beck’s Depression Inventory</td>
</tr>
<tr>
<td></td>
<td>Edinburgh Post-Natal Depression Scale (EPND Scale)</td>
</tr>
<tr>
<td></td>
<td>Hamilton Depression (Ham-D) Rating Scale</td>
</tr>
<tr>
<td></td>
<td>Geriatric Depression Scale (GDS)</td>
</tr>
</tbody>
</table>

**Children’s Hospitals**

A total of nine different instruments, scales or assessment tools and/or areas of activity were identified by the respondents working in children’s hospitals/care settings (see Box 3.4 below).

<table>
<thead>
<tr>
<th>BOX 3.4. NAME OF INSTRUMENT, SCALE OR ASSESSMENT TOOL IDENTIFIED BY RESPONDENTS WORKING IN CHILDREN’S HOSPITALS/CARE SETTINGS</th>
<th>NUMBER OF RESPONDENTS IDENTIFYING INSTRUMENT, SCALE OR ASSESSMENT TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wong-Baker FACES scale</td>
<td>1</td>
</tr>
<tr>
<td>Pain assessment tool</td>
<td>1</td>
</tr>
<tr>
<td>Medication administration audit tool</td>
<td>1</td>
</tr>
<tr>
<td>RIVERS assessment tool (used in neonatal abstinence/withdrawal syndrome)</td>
<td>1</td>
</tr>
<tr>
<td>Infection control audit tool</td>
<td>1</td>
</tr>
<tr>
<td>Head count audit tool (safety)</td>
<td>1</td>
</tr>
<tr>
<td>Name-bands audit tool (safety)</td>
<td>1</td>
</tr>
<tr>
<td>Audit of controlled drugs</td>
<td>1</td>
</tr>
<tr>
<td>Blood transfusion audit</td>
<td>1</td>
</tr>
</tbody>
</table>
Community and Primary Care

A total of thirty-four different instruments, scales or assessment tools and/or areas of activity were identified by the respondents working in community/primary care settings; the most frequently identified are shown in see Box 3.5 below.

<table>
<thead>
<tr>
<th>BOX 3.5. NAME OF INSTRUMENT, SCALE OR ASSESSMENT TOOL IDENTIFIED BY RESPONDENTS WORKING IN COMMUNITY/PRIMARY CARE SETTINGS</th>
<th>NUMBER OF RESPONDENTS IDENTIFYING INSTRUMENT, SCALE OR ASSESSMENT TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterlow Pressure Area Risk Assessment</td>
<td>9</td>
</tr>
<tr>
<td>Barthel Index (for measuring patients’ independence in activities of daily living and mobility)</td>
<td>7</td>
</tr>
<tr>
<td>Edinburgh Post-Natal Depression Scale (EPDS) (used to detect post-natal depression in mothers)</td>
<td>6</td>
</tr>
<tr>
<td>Pain level score (0-4)</td>
<td>3</td>
</tr>
<tr>
<td>Continence assessment form</td>
<td>4</td>
</tr>
<tr>
<td>Mental test score</td>
<td>4</td>
</tr>
<tr>
<td>Performance indicators</td>
<td>3</td>
</tr>
<tr>
<td>Breast-feeding</td>
<td>3</td>
</tr>
<tr>
<td>Enuresis clinics</td>
<td>2</td>
</tr>
<tr>
<td>Winchester Disability Rating Scale (WDRS) (used in the community to detect the elderly at risk and levels of dependency)</td>
<td>2</td>
</tr>
<tr>
<td>Mayo Early Language Screening Test (used to assess speech and language development in children)</td>
<td>2</td>
</tr>
<tr>
<td>Prevention of falls in the elderly</td>
<td>2</td>
</tr>
</tbody>
</table>

General Hospitals

A total of ninety-eight different instruments, scales or assessment tools and/or areas of activity were identified by the respondents working in general hospitals; the most frequently identified are shown in see Box 3.6 below.

<table>
<thead>
<tr>
<th>BOX 3.6. NAME OF INSTRUMENT, SCALE OR ASSESSMENT TOOL IDENTIFIED BY RESPONDENTS WORKING IN GENERAL HOSPITALS</th>
<th>NUMBER OF RESPONDENTS IDENTIFYING INSTRUMENT, SCALE OR ASSESSMENT TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterlow Pressure Area Risk Assessment</td>
<td>14</td>
</tr>
<tr>
<td>Pain score</td>
<td>8</td>
</tr>
<tr>
<td>Glasgow Coma Scale (GCS) (used to quantify level of consciousness)</td>
<td>6</td>
</tr>
<tr>
<td>Wound care chart</td>
<td>6</td>
</tr>
<tr>
<td>Oral assessment tool</td>
<td>5</td>
</tr>
<tr>
<td>Visual Infusion Phlebitis (VIP) Score (used to assess phlebitis at IV sites)</td>
<td>4</td>
</tr>
<tr>
<td>STRATIFY (a 5-point falls prediction tool for use with older people)</td>
<td>4</td>
</tr>
<tr>
<td>Patient-controlled analgesia (PCA) audit</td>
<td>4</td>
</tr>
<tr>
<td>Manchester triage system (MTS) (used to categorise the level of treatment required by patients presenting in accident &amp; emergency departments)</td>
<td>3</td>
</tr>
<tr>
<td>Roper-Logan-Tierney Model</td>
<td>3</td>
</tr>
<tr>
<td>Hospital Anxiety and Depression (HAD) Scale (a self-screening questionnaire for depression and anxiety, designed for use in general medical outpatients, but used extensively in primary care)</td>
<td>3</td>
</tr>
<tr>
<td>Falls assessment</td>
<td>3</td>
</tr>
</tbody>
</table>
Intellectual Disability Services

A total of twenty-four different instruments, scales or assessment tools and/or areas of activity were identified by the respondents working in intellectual disability services; the most frequently identified are shown in see Box 3.7 below.

<table>
<thead>
<tr>
<th>BOX 3.7. NAME OF INSTRUMENT, SCALE OR ASSESSMENT TOOL IDENTIFIED BY RESPONDENTS WORKING IN INTELLECTUAL DISABILITY SERVICES</th>
<th>NUMBER OF RESPONDENTS IDENTIFYING INSTRUMENT, SCALE OR ASSESSMENT TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person-centred plans</td>
<td>5</td>
</tr>
<tr>
<td>Positive behavioural assessment tool/behaviour management</td>
<td>4</td>
</tr>
<tr>
<td>Personal outcome measure</td>
<td>3</td>
</tr>
<tr>
<td>Waterlow Pressure Area Risk Assessment</td>
<td>2</td>
</tr>
<tr>
<td>OK Health Check (a comprehensive checklist system for assessing the healthcare needs of people with intellectual disability)</td>
<td>2</td>
</tr>
<tr>
<td>Care plans</td>
<td>2</td>
</tr>
<tr>
<td>MINI-PAS-ADD (an assessment schedule for mental health disorders in people with intellectual disability)</td>
<td>2</td>
</tr>
</tbody>
</table>

Older Person Care

The respondents working in older person care settings identified the highest number of different instruments, scales or assessment tools and/or areas of activity (n=118), many of which may have similar purposes (e.g., “patient satisfaction questionnaire” and “patient comment card”, “weight monitoring chart” and “weighing scales”). The most frequently identified instruments, scales or assessment tools and/or areas of activity are shown in Box 3.8 below.

<table>
<thead>
<tr>
<th>BOX 3.8. NAME OF INSTRUMENT, SCALE OR ASSESSMENT TOOL IDENTIFIED BY RESPONDENTS WORKING IN OLDER PERSON SERVICES</th>
<th>NUMBER OF RESPONDENTS IDENTIFYING INSTRUMENT, SCALE OR ASSESSMENT TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterlow Pressure Area Risk Assessment</td>
<td>24</td>
</tr>
<tr>
<td>Barthel Index (for measuring patients’ independence in activities of daily living and mobility)</td>
<td>16</td>
</tr>
<tr>
<td>Mini-Mental State Examination (MMSE)/Test Score</td>
<td>14</td>
</tr>
<tr>
<td>Falls/safety assessment</td>
<td>12</td>
</tr>
<tr>
<td>Pain assessment form</td>
<td>11</td>
</tr>
<tr>
<td>Patient movement and handling tool</td>
<td>8</td>
</tr>
<tr>
<td>Roper-Logan-Tierney Model</td>
<td>8</td>
</tr>
<tr>
<td>Braden Scale (for predicting pressure sore risk)</td>
<td>8</td>
</tr>
<tr>
<td>Mental test score</td>
<td>7</td>
</tr>
<tr>
<td>Medley pressure sore risk score (assessment scale)</td>
<td>6</td>
</tr>
<tr>
<td>Wound assessment</td>
<td>6</td>
</tr>
<tr>
<td>Mini Nutritional Assessment (MNA) (assessment tool to identify older patients at risk of malnutrition)</td>
<td>6</td>
</tr>
<tr>
<td>Care plans</td>
<td>6</td>
</tr>
<tr>
<td>Norton Scale (for predicting pressure sore risk)</td>
<td>6</td>
</tr>
<tr>
<td>Malnutrition Universal Screening Tool (MUST) (a five-step screening tool to identify adults, who are malnourished, at risk of malnutrition, or obese)</td>
<td>5</td>
</tr>
<tr>
<td>Manual handling chart</td>
<td>5</td>
</tr>
<tr>
<td>Continence assessment</td>
<td>5</td>
</tr>
</tbody>
</table>
Obstetric/Midwifery Hospital/Care Settings

A total of fifty-one different instruments, scales or assessment tools and/or areas of activity were identified by the respondents working in obstetric/midwifery hospital/care settings: the most frequently identified was the Baby-Friendly Hospitals Initiative breast-feeding audit tool (n=4); the remaining fifty instruments, scales or assessment tools and/or areas of activity were named just once each but covered a wide range of areas (e.g., uterine descent, staff satisfaction, critical incident report forms, etc).

Mental Health Services

A total of fifty-five different instruments, scales or assessment tools and/or areas of activity were identified by the respondents working in psychiatric hospitals/services: the most frequently identified were Beck’s Depression Scale and Waterlow Pressure Area Risk Assessment (n=3); a “mini mental scale” was named twice; and the remaining fifty-two instruments, scales or assessment tools and/or areas of activity were named just once each but covered a wide range of both similar and varying areas (e.g., Rosenberg Self-Esteem Scale, Edinburgh Post-Natal Depression Scale, “KGV modified symptom scale” used to provide a concise summary of the symptoms experienced by patients with serious mental illness, Side-Effects Scale/Checklist for Antipsychotic Medication/SESCAM, etc). The most frequently identified instruments, scales or assessment tools and/or areas of activity are shown in Box 3.9 below.

Other Settings

Respondents who had indicated that they were working in “other” types of settings identified 124 different instruments, scales or assessment tools and/or areas of activity. The most frequently reported items were Waterlow Pressure Area Risk Assessment (n=6); European Pressure Ulcer Advisory Panel (EPUAP) guide to pressure ulcer grading, visual analogue scale for pain, and Glasgow Coma Scale (each identified by four respondents); “moving and handling”, a falls risk assessment tool, “pain assessment tools (numerical)” and the Barthel Index (each identified by three respondents). The other instruments, scales or assessment tools and/or areas of activity identified included “glucometer”, “transfusion support chart”, “side-rail assessment”, Body Mass Index, Children’s Global Assessment Scale, “respiratory assessment score”, and the Western Ontario and McMaster (WOMAC) Osteoarthritis Index, among many others.

Although not all instruments, scales and/or assessment tools identified by the respondents are reported here, it is evident that the majority of them were used in the care of older people and/or in people at risk of developing pressure areas. This is not unexpected, given that the majority of respondents indicated that they were working in older person care settings.

Cost-Effectiveness

The cost-effectiveness implications of using tools for measuring the outcomes of nursing and midwifery interventions were considered in the focus groups. One working group enumerated evaluation, reviewing, budgeting, effective management of changes in practice and legal issues as activities relating to cost-effectiveness; other groups commented on using the results of audit to identify whether or not particular practices were cost-effective. Named areas of practice that had the potential for demonstrating cost-effectiveness (through audit) were interventions relating to continence, falls prevention, pressure area risk assessment (i.e., using the Waterlow Scale), risk management assessments, admissions and discharges to and from hospital, patient education and hand hygiene; similarly, certain services were deemed to have the potential to be cost-effective (e.g., pre-operative assessment clinics, triage, early intervention for cardiac patients). While there was an awareness of the cost-effectiveness implications of shorter stays in hospital linked with reduced infection rates, the cost-related outcomes of particular interventions were not always linked to other unforeseen outcomes, for example, the patient who leaves hospital with a successfully repaired fractured hip but with a hospital-acquired urinary tract infection.

The midwifery focus group referred to regular audits carried out in their services on the price of equipment, sterile and non-sterile supplies and to successful outcomes of cost-effectiveness in relation to early treatment units versus reduced stay in hospital, case-mix, rates of complications and rates of specific diseases. It was noted that qualitative aspects of nursing care, particularly in mental health and intellectual disability, were often not measured even though interventions of an interpersonal nature could prevent the need for more costly but measurable interventions: possibly services took the view, according to one participant, that if an intervention is “not measurable, therefore it is not seen to be cost-effective.”
In general the use of nursing and midwifery intervention tools was viewed as contributing to cost-effectiveness, but it was apparent that many participants were of the view that nurses and midwives might need to enhance their understanding of and ability to demonstrate the cost-effectiveness of their interventions. The mental health group commented that nurses and midwives were “not always good at recording and analysing the cost-effectiveness of their interventions” and “underutilised” this aspect of their work, while another group ascribed this to the need to manage their time more effectively. The education group gave examples of interventions that were “clearly not always cost-effective” such as unnecessary observations and assessments and continuing to carry out non-nursing tasks which could be delegated to nursing assistants. Nevertheless, education and training in assessing cost-effectiveness, unit-costing and financial measurement tools were seen as helping nurses and midwives to articulate the benefits and cost-effectiveness of their interventions, as was devolving of budgets to ward or unit level in order to promote the relevance of demonstrating cost-effectiveness.

Training in the Use of Tools

It was reported in the questionnaire that training was provided for 723 (76.8%) of the identified instruments. To augment this information the participants in the focus group discussions were asked to describe their experience of training in the use of tools to measure the outcomes of nursing and midwifery interventions; in addition the participants in the education group were asked to distinguish between the respective roles of recipients and providers of training. The in-house training approaches experienced by those working in practice/service settings included on-the-job training, orientation and induction programmes for new staff, self-teaching, formal training and coaching of individuals or small groups and informal observation (“see one, do one”). Two groups reported that training was given in-house by a clinical audit facilitator or by clinical nurse specialists, while another referred to training undertaken with an external agency. Most of the discussion, however, involved strategies to address any difficulties encountered in training.

Although the only difficulty identified in training was the lack of it, the working groups generally recognised the importance of the quality of training in the use of tools for the measuring the outcomes of nursing and midwifery interventions: “Training is the most important aspect of implementing tools into the clinical environment.” Suggested strategies for enhancing training included:

• conducting training needs analyses;
• validation and evaluation of the training process;
• updating of training and continuing support, especially where tools have been used for a long time, and for each tool used by the service;
• monitoring of the use of tools and ensuring that long-term use of tools continues to be based on sound evidence;
• adapting training programmes to respond to local and individual needs;
• involving nursing or midwifery practice development co-ordinators or other designated persons in training;
• obtaining specific resources such as replacement staff, a budget and protected study and implementation time;
• sharing of experience in using particular tools by forming links or networks of individuals using similar tools; and
• clarifying the responsibilities of various members of the multidisciplinary team in relation to documentation.

The training needs relating to other quality initiatives and for other staff were also acknowledged, as was the need to involve the multidisciplinary team in training. Other potential resources for training named by the focus groups were specific higher diploma programmes, expert trainers in particular skills and the National Council.

Factors Affecting the Use of Tools

Factors identified in the focus groups as enhancing the use of tools to measure the outcomes of nursing and midwifery interventions were:

• Provision of an appropriate and reliable documentation system
• Ensuring that tools used were user-friendly (or adapted to become so) and patently relevant to patient care and practice while still allowing nurses and midwives to act upon their own clinical judgements
• Ensuring that the tools to be used were valid and reliable and that any adaptations made to suit local use were as valid and reliable as the original
• Provision of adequate resources (e.g. staffing levels, effective time management, availability of support staff, funding, IT and library facilities)
• Gaining commitment from staff and from managers in terms of follow-up and support

• Good communication and opportunities to give feedback as part of effective change management processes

• Holding of budgets at a unit level in order to minimise restrictions on adapting and developing measurement tools.

“Standard approach necessary [nationally].”
Director of public health nursing.

“Monitoring of compliance in use of the tools needs to be done more frequently.”
Nursing practice development co-ordinator, general hospital.

“Good idea but staff release for training should be given and included in funding for professional development.”
Clinical development co-ordinator, general hospital.

“The development of a standardised audit tool would be very useful for clinical nurse managers and clinical nurse specialists.”
Assistant director of nursing, children’s hospital/care setting.

“If the goal is to be better patient outcomes and we are to benchmark these outcomes we should be using similar assessment scales and measurement tools.”
Nursing practice development co-ordinator, general hospital/older person care setting.

Factors identified by the respondents as inhibiting the use of instruments, scales and assessment tools included absence of a culture supportive of measuring outcomes of nursing interventions, time constraints and a lack of appropriate resources.

“[No organisational] culture of measuring nursing outcomes - more medically driven.”
Director of nursing, general hospital.

“Not all tools are used in each department and this needs to be addressed.”
Nursing practice development co-ordinator, general hospital.

“Time restraints pose a problem in conducting any assessments.”
Clinical nurse manager, older person care setting.

“Smaller hospitals require access to staff trained in audit and quality assurance, as many do not have expertise on staff. This creates difficulties in measuring outcomes for many interventions.”
Director of nursing, community hospital comprising specialised services.

A lack of training was the most frequently cited factor negatively affecting the use of measurement tools. While many other impediments to the use of measurement tools were simply the inverse of those factors enhancing their use (e.g., lack of time, a top-down, non-consultative approach to introducing measurement tools, etc) some other comments concerned the failure of some tools to account for cultural diversity while others concerned the need for a national standardised approach to the use of measurement tools. A question was raised about whether or not the use of such tools “fed into the nursing care plans.”

“Many of the instruments used are from generic practice and require [adaptation] for our specialist area.”
Assistant director of nursing, intellectual disability service.

“The use of instruments, scales and assessment tools [is very important. They provide] objective data but they are only one part of all nursing assessment.”
Assistant director of public health nursing.

“They are used for diagnosis and to indicate treatment but they do not measure the outcome of the intervention while determining the intervention.”
Director of public health nursing.

“Benefits gained are dependent on staff’s compliance with use of the tools or instruments.”
Nursing practice development co-ordinator, general hospital.

“Not aimed towards private sector where limited resources and staffing are present.”
Director of nursing, older person care setting.
“Difficult to find appropriate assessments due to nature of service.”
Director nursing, community/primary care service.

“[Previous audit results have shown that] currently staff are not completing [named pressure sore risk assessment tool] correctly … and this has identified a need for further education.”
Nursing practice development co-ordinator, general hospital.

In addition a number of resources were identified to support nurses and midwives to use intervention measurement tools effectively and efficiently and to the benefit of patients, with the most frequently mentioned items being time and education and training (including access to training and training in audit). Funding, adequate staffing levels and support from management were also identified, as was access to information technology, user-friendly software and library facilities. Specific staff roles were referred to such as a professional development adviser, quality assurance posts and “link” personnel to support the use of intervention measurement tools. Other items identified were the provision of examples of interventions and audits, of opportunities for sharing findings at national, regional and local levels (i.e., websites, databases and networks).

Contents of a Resource Pack

Suggestions given in the focus groups for the content of a resource pack ranged from definitions and explanations of the various types of intervention measurement tools to guidelines for networking and sharing information about the implementation of intervention measurement tools (see Box 3.10).

Box 3.10. Participants’ Suggestions for the Contents of a Resource Pack

- Definitions and explanations of intervention tools, their purposes and types, the language used
- Lists of the most common tools used and of those appropriate for use in the various specialised areas
- Lists of the most common nursing and midwifery interventions and the pertinent measurement tools
- References and resources to support the introduction and development of measurement tools, e.g., lists of relevant websites, lists of speciality-specific references, lists of measurement tools used in Ireland
- Outline of the roles of nurses and midwives in the use of measurement tools, including accountability issues
- Exemplars of initiatives concerning the implementation of measurement tools
- Guidelines for addressing reliability and validity issues including where measurement tools had been adapted to suit local needs
- Guidelines for identifying appropriate and effective measurement tools
- Guidelines for identifying “SMART” outcomes
- A synopsis of the benefits and drawbacks of the use of measurement tools and of specific tools
- Definitions of, explanations and instructions for conducting audits
- Contact details of experts in the use of measurement tools
- Guidelines for a national approach to using measurement tools
- Guidelines for training and education programmes in the use of measurement tools
- Guidelines and resources for networking throughout the country and sharing of information and experience between services
- Descriptions of nursing classification systems

The participants emphasised that the pack should be user-friendly and should have information suited for different grades of nursing and midwifery staff. It was suggested that the pack could include or be developed at a later stage to include a DVD or videotape.
Other Ways to Enhance the Nursing and Midwifery Contribution

Asked in what other ways nurses and midwives could enhance their contribution to health service provision, the participants reiterated the importance of support from management for the implementation of intervention measurement tools and audit: this support would take the form of training, study leave to attend training and securing “dedicated” time for the measurement of the outcomes of nursing and midwifery interventions and audit. The value of sharing information about relevant activities both within and between services was restated: sharing by means of networks, databases and publishing would stop nurses and midwives “re-inventing the wheel”. Other suggestions included revising the roles of specific staff or teams (e.g., clinical nurse specialists, risk management teams or project officers, clinical practice-based trainers and joint appointments) to support the provision of training, standardisation of practice and audit and evaluation of practice. The education group referred to adapting higher education programmes to meet service needs more closely.

Future Plans to Introduce Instruments, Scales or Assessment Tools

Those questionnaire respondents who indicated that their organisation/service did not use any instruments, scales or assessment tools (n=29, 18.4%) were asked to indicate if their organisation/service planned to introduce such items. Eleven respondents (37.9%) indicated that there was an intention to introduce these items, four (13.8%) indicated there was no intention to do so, and thirteen (44.8%) stated that they were unsure.

“We are planning to use other instrument and assessment tools for other symptoms.”
Director of public health nursing.

“We are currently in the process of introducing Essence of Care patient-focused benchmarks for clinical governance.”
Matron, older person care setting/nursing home.

“Our service is using such tools in one area only. However, we are planning to introduce similar scales, etc, following educational programmes and a course on evidence-based practice. Staff do not wish to use scales/tools without education.”
Nursing practice development co-ordinator, psychiatric hospital/service.

“We are currently working on developing a nursing portfolio of assessment tools which will standardise the tools being used. Some of these are diagnostic, some are for evaluating outcomes, progress, etc.”
Nursing practice development co-ordinator, psychiatric hospital/service.

“Currently we are looking to develop an audit tool to evaluate clinical guideline use/implementation.”
Midwifery practice development co-ordinator, obstetric/midwifery hospital/care setting.

Promoting the Use of Instruments

Suggestions for how the use of instruments, scales and assessment tools might be promoted or enhanced were provided. These referred to standardised approaches, greater sharing of information between organisations and more efficient documentation systems. In relation to standardisation, however, one director of nursing in a community hospital for older persons pointed out that “all creativity would be blocked and the challenge of professionalism diminished significantly.”

“Should be a database for all of these scales, i.e. ‘not to be re-inventing the wheel’.”
Assistant director of nursing/midwifery, general hospital.

“The amalgamation of documentation is required (whether in hard copy or electronically), as there are so many documents to be completed by nursing and midwifery staff.”
Nursing practice development co-ordinator, general hospital.

“I would like to see an assessment tool package developed to deal with the common aspects of caring for older people. This may encourage more use of assessment tools by nurses who are very busy and sometimes find all different tools too much to complete. … Concise effective paperwork - not reams of it …”
Grade/job title not stated, older person care setting.
"A process of sharing all this information would be a benefit that this could be national outcomes and we could assess ourselves against national standards, ..."  
Director of nursing, older person care setting.

"The development of a standardised audit tool would be very useful for clinical nurse managers and clinical nurse specialists. This would improve networking between hospitals and improve collaboration between different departments internally and externally, e.g., infection control audit tool. It would be so beneficial for nurses to have an audit tool (template) which they can modify specific to their areas."

Assistant director of nursing, children’s hospital/care setting.

Support from the National Council

The role of the National Council in supporting nurses and midwives to measure their care was identified by focus group participants. Many of the suggestions were a restatement of the contents of the proposed resource pack and other related resources or of the National Council’s current activities (e.g., funding of specific programmes, organisation of relevant master classes, etc). However, it was strongly suggested the National Council should drive and resource the data collection on all intervention measurement tools currently in use throughout the country. The National Council was also viewed as having a key role in supporting the systematic implementation of intervention measurement tools within nursing, midwifery and related services.

Conclusion

The nurses and midwives consulted in the course of this data collection indicated that many services (particularly general and older person settings) in Ireland were involved in quality improvement programmes. It is evident that nurses and midwives working the various settings are using instruments of one kind or another to gather data relating to the outcomes of nursing, midwifery, multidisciplinary/interdisciplinary or other interventions. Many of these are used throughout the respective organisations and services. Factors such as organisational culture, training, communication, resources and commitment support the introduction of measurements to evaluate nursing and midwifery interventions. The findings are discussed more fully in the following chapter.
CHAPTER FOUR
Conclusions and Recommendations

This study aimed to establish for the first time the extent to which nurses and midwives working in different types of healthcare services and settings in Ireland identify their interventions and measure the outcomes of these interventions, and how they utilise the data they gather. The scope of the research was extensive and included the experiences and views from a broad range of service settings including general hospitals, public health nursing, paediatric hospitals, obstetric hospitals, mental health services, intellectual disability services and the private nursing home sector. The themes of the data collected for this study interweave with each other and include understanding of nursing and midwifery interventions and the measurement of their outcomes, the extent to which instruments, scales and assessment tools may be used by nurses and midwives in clinical practice, factors influencing the use of instruments, scales and assessment tools by nurses and midwives, and the relationship of instruments, scales and assessment tools to multidisciplinary working, and resources needed by nurses and midwives to enhance their use of instruments, scales and assessment tools and to articulate more effectively their contribution to the Irish health service.

It is recognised that nurses and midwives work as part of a multidisciplinary team and that their interventions are part of overall quality improvement and assurance programmes. This document aims to encourage nurses and midwives to be aware of the quality of their interventions and identify the effectiveness of them. This will necessitate the use of measurement tools specifically aimed at nurses and midwives in some instances and in other instances measurement tools that reflect the multidisciplinary team’s interventions in entire episodes of patient and client care.

The Present Study

It must be acknowledged that despite repeated reminders, the response rate to the questionnaire survey was low, particularly the response rate of the general hospitals, and that particular groups of nurses were underrepresented both in the survey and in the focus group discussions. On the other hand, older person services were well represented in the survey. Nevertheless, nurses and midwives working in different types of setting in the Irish healthcare system have experience of using instruments, scales and assessment tools to guide and document their interventions, whether these interventions be nurse-/midwife-prescribed, physician- (or other healthcare professional) initiated or service-prescribed for the purposes of quality improvement. Generally the range of instruments most frequently identified are used in such areas as risk assessment (e.g., pressure area and falls risk assessment), pain management and patient safety, but this may vary depending on the type of service or setting: for example, instruments used to assess depression are more likely to be used in mental health settings.

As most respondents reported using six or fewer instruments, scales or assessment tools in their organisations or services, it may be inferred that they are not widely used, are used in very specific circumstances and with very specific patients or clients (e.g., those at risk of developing pressure areas or falling), or are used selectively in accordance with specific priorities (i.e., patient safety, workload). In relation to multidisciplinary healthcare interventions many of the instruments identified were originally developed by other health and social care professionals. For example, the Glasgow Coma Scale used to assess the recovery of patients with head injuries was devised by neurologists (Teasdale and Jennet 1974) and the Mini-Mental State Examination used to assess cognition with specific patient groups is used by other health care professionals as well as nurses (Scott and Caine 2002). Nevertheless, such instruments have been adopted and adapted by nurses and midwives and their use falls within the current scope of nursing and midwifery practice.

The evidence of participation in quality improvement programmes and the use of quality improvement practices such as accreditation schemes and audit suggests that nurses and midwives are responding positively and actively to the quality improvement agenda for the Irish health system. Overall, the larger organisations and services were more likely to be participating in such schemes, the IHSAB accreditation scheme being the most frequently cited. These schemes were recognised as enhancing multidisciplinary team-working. Similarly, the benefits of audit (including clinical and other audit) were acknowledged in relation to enhancing the service provided and monitoring of nursing and midwifery practice. Service-wide audit was perceived to affect how nurses and midwives prioritised their work in various ways.

The usefulness or otherwise of instruments, scales and assessment tools in relation to demonstrating the cost-effectiveness of particular nursing and midwifery interventions was related to audit. However, it was suggested that nurses and midwives might benefit from training to raise awareness of costing nursing and midwifery interventions and demonstrating their cost-effectiveness. It was also envisaged that holding a budget at a unit-level and being able to articulate issues of cost-effectiveness would at the same time enable nurses and midwives to articulate the benefits of their interventions generally and to identify
and delegate non-nursing or non-midwifery tasks to appropriate grades of staff. Comments relating to the lack of recognition for qualitative interventions because of difficulties in demonstrating their cost-effectiveness echoed those in the broader nursing and midwifery literature.

The necessity for documenting nursing and midwifery interventions was evidently recognised, but its importance was not necessarily indicated by whether or not specific instruments, scales and assessment tools, or care planning documentation was used, nor by the frequency with which documentation was completed. It was suggested that instruments were more likely to be used effectively if they were user-friendly and implemented with adequate training. As the health services in Ireland move towards increased electronic communication, it will be crucial for nurses and midwives to ensure that they can continue to document their interventions within any future patient and client care record system. Nurses and midwives should also ensure that the system to be used will enable them to identify the outcomes of their clinical interventions as well as those relating to non-clinical quality improvement interventions.

The research undertaken by the National Council has examined a number of issues and areas relevant to nurses and midwives working in various types of settings and services in the Irish health system in relation to interventions and measurement of their outcomes. This report reflects the views, perspectives and experiences of nurses and midwives throughout the country. The implications of the findings for nurses and midwives are incorporated into the following recommendations and into the resource pack contained in Part 2 of Measurement of Nursing and Midwifery Interventions: Guidance and Resource Pack.

**Recommendations**

Nurses and midwives, whether working at the front-line of patient and client care or supporting those who do, have a professional responsibility to provide safe, competent and evidence-based care. The use of appropriate instruments, scales and assessment tools facilitates the provision of this care, but evidence emerging from the present study suggests that these instruments are not as widely used as they could be and that more could be done to promote their use. It is essential, therefore, that a strategic approach is taken at all levels by nurses and midwives to ensure appropriate measurement and evaluation of nursing and midwifery care. Where possible nurses and midwives need to be part of organisation- and service-wide audit initiatives as active members of the multidisciplinary team. Line managers, nursing and midwifery practice development co-ordinators and educators have key roles in supporting front-line nurses and midwives in fulfilling these responsibilities. Education and training providers working at service, regional and national levels have a pivotal role in ensuring that a strategic approach is taken to ensuring the competence of nurses and midwives in relation to their interventions, the use of relevant valid and reliable instruments, scales and assessment tools and the credible recording, reporting and dissemination of results.

The key objectives of the recommendations emerging from this project are to:

- Encourage nurses and midwives to be aware of the quality of their interventions and identify the effectiveness of interventions. This information should then inform both practice and service development.
- Enhance confidence and competence among nurses and midwives in the selection and prioritisation of interventions, especially those to be documented to meet the requirements of any quality improvement programmes.
- Provide guidance to those seeking to establish and develop suitable training programmes for nurses and midwives in relation to interventions, the measurement of their outcomes and the use of the data gathered.
- Support nurses and midwives in demonstrating responsibility and accountability for their interventions and choice of interventions in relation to cost-effectiveness, contributing to multidisciplinary health and social care and quality assurance.

The recommendations are as follows:

1. Nurses and midwives should be knowledgeable about the various methods they can use to measure their interventions, whether this measurement activity is required for multidisciplinary evaluations, hospital- or service-wide audit or for separate nursing- or midwifery-initiated interventions.
2. Where hospital- or service-wide audits are taking place nurses and midwives should ensure that nursing and midwifery interventions and their outcomes are included as part of these audits.
3. Nurses and midwives should initiate measurement of care using methods appropriate to their specific care-setting.
4. Line managers should promote awareness and understanding of quality improvement and assurance practices. This involves developing effective collaborative working relationships among health and social care and non-clinical managers.
5. Education and training programmes for nurses and midwives in interventions and related outcomes should be developed in response to needs analyses. These programmes should be updated to reflect developments in the evidence-base relating to interventions and outcomes measurement and in the light of health service requirements. An innovative approach should be taken to modes of delivery of education and training programmes, especially where resources are restricted but a need for service quality improvement has been identified.

6. Nurses and midwives should be clear about the terminology relating to interventions and outcomes and be able to distinguish those evidence-based interventions that are initiated or directed by nurses and midwives as well as those initiated or directed by other health and social care professionals and those required by the quality improvement programme in which the hospital or service may be participating.

7. Databases of references and resources to support the introduction of and sustain the use of instruments for measuring the outcomes of nursing and midwifery interventions should be set up within organisations or services. Networking and sharing of resource material and expertise should be encouraged between organisations and services.

Conclusion

In the last decade or so nurses and midwives working in health services in Ireland have risen to the challenges of the international and national quality agenda for health services and to the challenges of identifying and articulating their contribution to high-quality care for and service delivery to an increasingly well-informed and assertive public. Nurses and midwives have welcomed and made use of the opportunities provided by the health service and third-level education sector for enhancing their competence in the various interventions they are required to make; they have also created their own such opportunities. Since its inception the National Council has worked with a wide range of stakeholders and has sought the views of nurses and midwives of all grades and working in diverse settings in order to ensure that its work and proposals have relevance for nurses and midwives as individuals and as professional groups. The Health Service Executive has now taken the operational lead in the unified health service. The National Council looks forward to working with nurses and midwives and other stakeholders in ensuring that nurses and midwives continue to work as effective and accountable members of the health service workforce.
References


REFERENCES


Nursing care interventions and patient outcomes not related to nursing classification systems, specialist roles or nurse-led initiatives across disciplines and specialities.

The following section reviews research and literature where patient outcomes have been evaluated from nurses who are not deemed to be Clinical Nurse Specialists (CNS) or Advanced Nurse Practitioners (ANP) but work within the different nursing divisions.

<table>
<thead>
<tr>
<th>AUTHOR / YEAR / TITLE / COUNTRY</th>
<th>TYPE OF DOCUMENT</th>
<th>SETTING / TYPE OF PATIENTS / PRESENTING CONDITION</th>
<th>STUDY DESIGN / SUMMARY DESCRIPTION</th>
<th>SELECTIVE FINDINGS / DISCUSSION</th>
<th>OUTCOME VARIABLES MEASURED</th>
<th>INSTRUMENT (I) OUTCOMES MEASURED (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwifery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morrison &amp; Chauhan (2003).</td>
<td>P, L</td>
<td>Home uterine monitoring.</td>
<td>A literature review on the current status of home uterine activity monitoring in the USA.</td>
<td>The authors claim that when compared to a control group women who received home uterine monitoring delivered by a midwife, neonatal morbidity is reduced, preterm birth rates are reduced and pregnancy is prolonged.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current status of home uterine activity monitoring. USA.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatric</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melynk, Feinstein, Moldenhouer &amp; Small (2001).</td>
<td>P, L</td>
<td>Chronically ill children.</td>
<td>The review focuses on assessment of parental coping with their chronically ill child and a review of scales currently in use. Interventions are reviewed and divided into 4 categories. • Disease specific educational interventions • Stress point interventions • Problem solving skills training • Educational behavioural interventions.</td>
<td>Effectiveness of these interventions in terms of outcomes is not discussed and there is a presumed nurse role in all of these interventions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coping in parents of children who are chronically ill: strategies for assessment and intervention. USA.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR / YEAR / TITLE / COUNTRY</th>
<th>TYPE OF DOCUMENT</th>
<th>SETTING / TYPE OF PATIENTS / PRESENTING CONDITION</th>
<th>STUDY DESIGN / SUMMARY DESCRIPTION</th>
<th>SELECTIVE FINDINGS / DISCUSSION</th>
<th>OUTCOME VARIABLES MEASURED</th>
<th>INSTRUMENT (I)</th>
<th>OUTCOMES MEASURED (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page, Lengacher, Holsonback, Himmerelgreen, Pappalardo, Lipana &amp; Lein (1999). Quality of care-risk adjustment outcomes model: testing the effects of a community-based educational self-management program for children with asthma.</td>
<td>USA.</td>
<td>P, S Community-based program for children with asthma.</td>
<td>An examination of the effects of a community-based educational self-management program for children with asthma. An outcomes model (Quality of Care Risk Adjustment Model) developed to test the effects of a community asthma educational program for children. The model was designed to measure a number of outcomes. The model was tested using a randomised experimental pre-test, intervention, post-test design with a control group.</td>
<td>Numerical data are not reported or other research methodology in this article.</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
<td>Quality of Care Risk Adjustment Model</td>
<td>Quality of Care Risk Adjustment Model was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pain</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Costs of care. Does an educational program reduce A&amp;E visits, hospital admissions, OPD appointments (assessed from diary entries of medication costs and attendance at hospital departments)?</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Patient &amp; parental satisfaction (measured with an existing scale, the Ambulatory Care Satisfaction Index, Parent and Child Version)</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Improve patient coping (existing measure called the Coping Health Inventory for Parents)</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Increasing knowledge (measured with adaptations to the Knowledge of Asthma Inventory)</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Increase physical functioning (assesses from diary entries of levels of activity, missed days from school, sleep pattern)</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Increase clinical stability (assessed with patient diaries).</td>
<td>Quality of Care Risk Adjustment Mode was designed to measure a number of outcomes.</td>
</tr>
<tr>
<td>Stevens, Johnston, Frank, Petryshen, Jack &amp; Foster (1999).</td>
<td>The efficacy of developmentally sensitive interventions and sucrose for relieving procedural pain in low birth weight neonates. Canada.</td>
<td>P, S Neonatal procedural pain.</td>
<td>The study tests the efficacy of developmentally sensitive interventions and sucrose for relieving procedural pain in very low birth weight neonates (n = 122). The outcome measured was pain response following routine heel lance procedures. A number of interventions (pacifier with sucrose, pacifier with water and prone positioning) were investigated to assess pain response. All 122 infants were subjected to the three interventions in random order.</td>
<td>Findings: Significant reductions in pain response resulted with the pacifier with sucrose and the pacifier with sterile water. Prone positioning did not reduce pain.</td>
<td>Pain was measured using the Premature Infant Pain Profile. This scale has behavioural and physiological elements.</td>
<td>Premature Infant Pain Profile</td>
<td>Pain was measured using the Premature Infant Pain Profile. This scale has behavioural and physiological elements.</td>
</tr>
</tbody>
</table>

### Paediatric continued

<table>
<thead>
<tr>
<th>Author / Year / Title / Country</th>
<th>Type of Document</th>
<th>Setting / Type of Patients / Presenting Condition</th>
<th>Study Design / Summary Description</th>
<th>Selective Findings / Discussion</th>
<th>Outcome Variables Measured Instrument (I) Outcomes Measured (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turrill (2003 a &amp; b)</td>
<td>P, S</td>
<td>Neonatal nursing in an intensive care unit.</td>
<td>A case study combining semi-structured interviews with documentary evidence was used to examine the relationship between neonatal nursing practice and long-term outcomes of survivors. Specific nursing interventions that potentially can influence neonatal development are concerned with monitoring the physiological alterations outside the normal parameters such as blood pressure, oxygen saturation and tissue perfusion. Seven nurses were interviewed with a semi structured questionnaire to determine their knowledge, attitudes and beliefs about developmental outcomes for neonates and the impact of their practice on this outcome.</td>
<td>Findings: A connection is made between an alteration in vital signs and brain cell damage. In addition, a lack of knowledge among the nurses interviewed about developmental outcomes.</td>
<td></td>
</tr>
</tbody>
</table>
| Pellino, Tluczek, Collins, Trimborn, Norwich, Engelke & Broad (1998). Increasing self-efficiency through empowerment: preoperative education for orthopaedic patients. USA (Wisconsin). | P, S             | Preoperative education for orthopaedic patients.   | Measurement of outcomes resulting form preoperative education for orthopaedic patients. An experimental (empowerment teaching method) group versus comparison group (traditional teaching method). | Findings: There are differences reported in the first measure, whereby people in the empowerment group had higher self efficacy scores. No differences were found in length of stay, pain management or complications. The authors admit that the measures for pain and complications may not have been sensitive enough. | Outcomes measured:  
• Empowerment & self efficacy in their ability to carry out peri-operative tasks (empowerment scale was developed by research team based on literature sources and validated by nurse educators, the self-efficacy scale was developed from pre existing scales with adaptations)  
• Length of stay  
• Pain management (measures from the patients’ records about pain control)  
• Complications (pulmonary complications).  
Vascular Nursing  
Orthopaedic Nursing |

<table>
<thead>
<tr>
<th>AUTHOR / YEAR / TITLE / COUNTRY</th>
<th>TYPE OF DOCUMENT</th>
<th>SETTING / TYPE OF PATIENTS / PRESENTING CONDITION</th>
<th>STUDY DESIGN / SUMMARY DESCRIPTION</th>
<th>SELECTIVE FINDINGS / DISCUSSION</th>
<th>OUTCOME VARIABLES MEASURED/ INSTRUMENT (I) OUTCOMES MEASURED (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vascular Nursing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquila (2001). The vascular project: using data to improve processes and outcomes. USA (Connecticut)</td>
<td>P, S, G</td>
<td>Acute care hospital, vascular disease</td>
<td>Explored the selective use of intensive care unit (ICU) vascular care unit (VCU) for low-risk monitoring of carotid and lower extremity patients. Examined use of services, patient satisfaction and clinical status of patient population. SS: 400 carotid surgery patients, 306 lower extremity surgery patients. Measures of patient satisfaction use a 24-48 hour telephone follow up questionnaire. Although this telephone questionnaire is comprehensive for a wide selection of outcomes, the nursing contribution is not clear.</td>
<td>The authors describe pre operative teaching that may be delivered by the surgeon and therefore may be capturing multidisciplinary outcomes as opposed to nurse-sensitive interventions and outcomes.</td>
<td>I: Clinical pathway document tool for carotid and lower extremity patients. OM: Physiologic and psychosocial status, behaviour, knowledge, safety symptom control, quality of life, goal attainment, patient satisfaction, use of services and resolution of nursing services.</td>
</tr>
<tr>
<td><strong>General Nursing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faucett (1999). Chronic low back pain.</td>
<td>P, L</td>
<td>Chronic low back pain.</td>
<td>Offers a review of literature on interventions and outcomes for those suffering chronic low back pain. The review does not refer to specific nursing research studies but the authors conclude that the interventions and outcomes isolated could fall within the scope of the nurse.</td>
<td>Measuring the impact of a rehabilitation programme was discussed as a potential area for outcomes with specific measures such as predictors of well-being, pain, disability and return to work.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AUTHOR / YEAR / TITLE / COUNTRY</th>
<th>TYPE OF DOCUMENT</th>
<th>SETTING / TYPE OF PATIENTS / PRESENTING CONDITION</th>
<th>STUDY DESIGN / SUMMARY DESCRIPTION</th>
<th>SELECTIVE FINDINGS / DISCUSSION</th>
<th>OUTCOME VARIABLES MEASURED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Palliative Care (motor neurone disease)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hughes, Aspinal, Higginson, Addington-Hall, Dunckley, Faull &amp; Sinha (2004). Assessing palliative care outcomes for people with motor neurone disease living at home. UK.</td>
<td>P, L</td>
<td>Palliative care, motor neurone disease.</td>
<td>Assessed the use of the Palliative Care Outcomes Scale for people with motor neurone disease living at home. Eight patients with motor neurone disease who completed the scale with their Motor Neurone Disease Association (MNDA) visitors were interviewed. Three MNDA visitors also agreed to be interviewed.</td>
<td>Findings: The Palliative Care Outcomes Scale was found to be easy to use and helped develop relationships between client and carer. The MNDA visitors felt that the use of the scale helped them focus on the clients concerns. Some of the sections on the scale were not relevant to those with motor neuron disease and suggestions were made for some more relevant symptoms applicable to them. This is an important study in terms of asking the client about relevance of the scale to their particular needs.</td>
<td>I: Palliative Care Outcomes Scale.</td>
</tr>
<tr>
<td><strong>Cancer Nursing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baker (1995). A functional status scale for measuring quality of life outcomes in head and neck cancer patients. USA (Ohio).</td>
<td>P, S</td>
<td>Cancer care, head and neck.</td>
<td>Evaluation of quality of life after head and neck cancer treatment. This qualitative study developed a functional status scale for measuring outcomes in head and neck cancer patients. The scale targets patients’ problems that are sensitive to their needs. SS: 115 outpatients interviewed identified problems related to disease and treatment modalities to develop the disease-specific measure. Validity and reliability of the self-report scale were tested with 202 cancer patients.</td>
<td>There is scope to then target interventions and measure outcomes related to these problems.</td>
<td>I: Functional status head and neck self report. OM: functional status between groups of cancer patients at one point in time.</td>
</tr>
</tbody>
</table>
## Oncology Nursing

<table>
<thead>
<tr>
<th>Author / Year / Title / Country</th>
<th>Type of Document</th>
<th>Setting / Type of Patients / Presenting Condition</th>
<th>Study Design / Summary Description</th>
<th>Selective Findings / Discussion</th>
<th>Outcome Variables Measured</th>
<th>Instrument (I) Outcomes Measured (OM)</th>
</tr>
</thead>
</table>
| Freise & Beck (2004). Advancing practice and research: creating evidence-based summaries on measuring nursing-sensitive patient outcomes. USA. | P, R | Report on the work from the Oncology Nursing Society (American). | Describes the Oncology Nursing Sensitive Outcomes team aim to create evidence-based summaries on measuring nursing-sensitive patient outcomes. The team decided in the first phase of the project in 2003 to undertake a systematic review on specific outcomes from 3 of the categories. Symptom category: fatigue and nausea and vomiting was reviewed in the literature to ascertain definitions, existing measuring tools and any other evidence to support treatments for fatigue and nausea and vomiting. Functional category: existing measuring tools were reviewed for outcomes related specifically to a return to usual functioning. Safety category: prevention of infection was chosen as a specific nursing sensitive outcome. | This outcomes work is displayed on the Oncology Nursing Society web page (http://www.ons.org/evidence) as a guide and framework for clinicians, researchers and educationalists in the implementation of nursing-sensitive outcomes into the practice arena. There are plans to review the other two remaining categories. | Categories deemed to be oncology nursing sensitive outcomes are:  
- Symptom experience  
- Functional status  
- Safety (preventable adverse events)  
- Psychological distress  
- Economic. | |
| Given, Given, McCorkle, Kozachik, Cimprich, Rahbar, & Wojcik, (2002). Pain and fatigue management: results of a nursing randomised clinical trial. USA. | P, S | Cancer care, pain and fatigue. | Investigates pain and fatigue management in a randomised clinical trial. A nursing intervention (10 sessions) was introduced to the intervention group (n = 53) over a 20 week period with patients who were receiving an initial course of chemotherapy. The control group (n = 60) received the conventional care. Outcomes were measured at 10 and 20 weeks. The nursing intervention consisted of a cognitive-behavioural framework that focuses on problem solving, information acquisition, self-care management for symptoms, and emotional | Findings: The findings indicate that patients in the intervention group reported fewer symptoms with an improved impact on their physical and social roles. | OM:  
- Number of symptoms (measured by counting the number of a designated list of symptoms over the previous two weeks)  
- Reduction of physical role impact  
- Improved social function  
The second two were measured by Medical Outcomes Study 36 Short form (SF-36) | |
### Oncology Nursing continued

and social support for patients. All had baseline reports of pain and fatigue in order to measure the impact of the intervention. All data was collected with telephone contact.

### Health Care of Elderly

<table>
<thead>
<tr>
<th>Author / Year / Title / Country</th>
<th>Type of Document</th>
<th>Setting / Type of Patients / Presenting Condition</th>
<th>Study Design / Summary Description</th>
<th>Selective Findings / Discussion</th>
<th>Outcome Variables Measured / Instrument (I) / Outcomes Measured (OM)</th>
</tr>
</thead>
</table>

### Cardiology Nursing

<table>
<thead>
<tr>
<th>Author / Year / Title / Country</th>
<th>Type of Document</th>
<th>Setting / Type of Patients / Presenting Condition</th>
<th>Study Design / Summary Description</th>
<th>Selective Findings / Discussion</th>
<th>Outcome Variables Measured / Instrument (I) / Outcomes Measured (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dunbar, Funk, Wood &amp; Valderrama (2004). Ventricular dysrhythmias: nursing approaches to health outcomes. USA.</td>
<td>P, L Ventricular dysrhythmias.</td>
<td>Provides a review of the literature to evaluate nurse sensitive outcomes for patients with ventricular dysrhythmias. 34 studies are reviewed and outcomes resulting from nursing interventions reported.</td>
<td>Outcomes resulting from nursing interventions identified: • mortality • morbidity • symptoms and symptom management • functional status • knowledge • quality of life • psychological • family member outcomes • cost of care and readmission.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author / Year / Title / Country</td>
<td>Type of Document</td>
<td>Setting / Type of Patients / Presenting Condition</td>
<td>Study Design / Summary Description</td>
<td>Selective Findings / Discussion</td>
<td>Outcome Variables Measured</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------</td>
<td>-----------------------------------------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Deaton &amp; Grady (2004).</td>
<td>P, L</td>
<td>Cardiovascular nursing, heart failure.</td>
<td>Review of the literature for cardiovascular nursing outcomes for patients with heart failure.</td>
<td>The studies reviewed feature the following nursing outcomes: • Return to work, and • Patient compliance with medication and following a healthy diet • Mortality • Morbidity • Symptoms and symptom management • Functional status • Knowledge • Quality of life • Psychological • Family member outcomes • Cost of care and re hospitalisation.</td>
<td></td>
</tr>
<tr>
<td>Leeper (2004).</td>
<td>P, L</td>
<td>Coronary care unit (CCU) and patients with percutaneous coronary interventions.</td>
<td>A literature review of nursing studies that address specific nursing interventions and outcomes for the care of the person prior to, during and post percutaneous coronary procedures.</td>
<td>Outcomes fell into these outcomes categories: • Costs of care delivered in CCU or non CCU units • Morbidity outcomes- the most effective nursing interventions regarding compression • Symptom management- nursing interventions to relieve back pain while on bed rest post the procedure • Quality of life-had PCI improved functional status, home &amp; occupational function &amp; psychological function • Knowledge &amp; behaviour modification.</td>
<td></td>
</tr>
<tr>
<td>AUTHOR / YEAR / TITLE / COUNTRY</td>
<td>TYPE OF DOCUMENT</td>
<td>SETTING / TYPE OF PATIENTS / PRESENTING CONDITION</td>
<td>STUDY DESIGN / SUMMARY DESCRIPTION</td>
<td>SELECTIVE FINDINGS / DISCUSSION</td>
<td>OUTCOME VARIABLES MEASURED INSTRUMENT (I) OUTCOMES MEASURED (OM)</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------------------</td>
<td>-----------------------------------------------</td>
<td>----------------------------------</td>
<td>--------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Woods &amp; Richards (2003). Effectiveness of nursing interventions in people with personality disorders. UK.</td>
<td>P, L</td>
<td>Personality disorders.</td>
<td>Systematic review of the effectiveness of nursing interventions in people with personality disorders. Studies included in the review were selected if nurses were delivering an intervention independently or in conjunction with other health professionals. Eighteen studies met the inclusion criteria. Some of the treatments delivered for patients with personality disorders include cognitive behavioural therapy, problem solving and cognitive skills training and therapeutic interventions.</td>
<td>The review identified one study which found positive outcomes in symptom reduction and a reduction in social functioning and/or disability. Positive outcomes in the other outcomes arise when a mixed disciplines administered the therapies. The authors conclude that the evidence is limited to assess the effectiveness of nursing interventions alone.</td>
<td>Outcomes evident in the studies reviewed include:  - Social functioning and/or disability (for example a reduction in self harm) - Service usage (hospital admissions and use of medication) - Symptoms (depression, anxiety, distress) - Personality disorder status.</td>
</tr>
</tbody>
</table>

**Psychiatric Nursing**

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Type</th>
<th>Setting</th>
<th>Study Design</th>
<th>Selective Findings</th>
<th>Outcome Variables Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woods &amp; Richards</td>
<td>2003</td>
<td>P, L</td>
<td>Personality disorders</td>
<td>Systematic review of the effectiveness of nursing interventions in people with personality disorders. Studies included in the review were selected if nurses were delivering an intervention independently or in conjunction with other health professionals. Eighteen studies met the inclusion criteria. Some of the treatments delivered for patients with personality disorders include cognitive behavioural therapy, problem solving and cognitive skills training and therapeutic interventions.</td>
<td>The review identified one study which found positive outcomes in symptom reduction and a reduction in social functioning and/or disability. Positive outcomes in the other outcomes arise when a mixed disciplines administered the therapies. The authors conclude that the evidence is limited to assess the effectiveness of nursing interventions alone.</td>
<td>Outcomes evident in the studies reviewed include:  - Social functioning and/or disability (for example a reduction in self harm) - Service usage (hospital admissions and use of medication) - Symptoms (depression, anxiety, distress) - Personality disorder status.</td>
</tr>
</tbody>
</table>

**Community Psychiatric Nursing**

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Type</th>
<th>Setting</th>
<th>Study Design</th>
<th>Selective Findings</th>
<th>Outcome Variables Measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brooker, Repper, &amp; Booth</td>
<td>1996</td>
<td>P, L</td>
<td>Community mental health nursing</td>
<td>Systematic review of experimental or quasi-experimental research on the effectiveness of the community mental health nursing (CMHN) as compared to GPs care. Studies are reviewed that assess outcomes resulting from interventions provided by the CMHN group as compared to standard care provided by other nurse groups. 11 studies were reviewed.</td>
<td>For studies comparing interventions by the CMHN group as oppose to interventions delivered by the GP group outcomes were:  - Consumer satisfaction with care  - Costs of care  - Adequacy of assessments. In the studies comparing interventions by the CMHN group and other nurse groups, or interventions by specialist. CMHN and generic CMHN outcomes measured were:  - Consumer satisfaction  - Costs of specialist care. The authors conclude that there is little evidence from the studies reviewed to evaluate the effectiveness of nurse interventions.</td>
<td>Some examples of instruments identified in the article for a variety of interventions:  - Self-poisoners:  - Adequacy of assessment  - Consumer views  - Further episodes  - Management Behavioural psychotherapy:  - Fear questionnaire  - General health questionnaire  - Service use Cognitive therapy:  - SCL-90-R inventory  - Beck depression inventory  - Beck hopelessness scale  - Social adjustment self report Counselling:  - Spielberger trait anxiety  - Behavioural psychotherapy:  - Phobic severity Family intervention in schizophrenia:  - Krawiec, Goldberg &amp; Vaughan  - Social adjustment scale.</td>
</tr>
</tbody>
</table>
### Community Nursing

<table>
<thead>
<tr>
<th>Author / Year / Title / Country</th>
<th>Type of Document</th>
<th>Setting / Type of Patients / Presenting Condition</th>
<th>Study Design / Summary Description</th>
<th>Selective Findings / Discussion</th>
<th>Outcome Variables Measured Instrument (I) Outcomes Measured (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingston, Jones, Lally &amp; Crone (2001).</td>
<td>P, S</td>
<td>Care of the elderly and falls.</td>
<td>A randomised control trial of a health visitor (HV) intervention with older patients post a fall. The intervention was targeted at those patients who had sustained a fall within 5 days after attending the A&amp;E department. The intervention consisted of a rehabilitation programme delivered by the nurse within the 5 day time frame and were managed by the health visitor for 12 months post fall. The intervention group (n = 60) received advice on: • Pain control and medication • Minimise fall complications • Education on home risk factors • Exercise and diet. The control group (n = 49) received the standard post fall instructions from the A &amp; E department.</td>
<td>The authors determine that the main outcome of interest is ‘physical functioning’ at 4 weeks and 12 weeks post fall. All but one of the outcome measures showed no significant difference in scores between the two groups at the 4 day or 12 stage post fall. The only significant score at day 4 occurred in the intervention group on the ‘General Health’ outcome. This is explained as occurring by chance. Inclusions of falls occurring within or outside the home are offered as an explanation for a no difference in scores. In addition, no significance was found in either group in relation to further falls.</td>
<td>Outcomes were measured on the Short Form 36 (SF36) Acute Version. Secondary outcome measures consisted of seven other domains on the SF36: • Role-physical • Bodily pain • General health • Vitality • Social functioning • Role-emotional • Mental health.</td>
</tr>
<tr>
<td>Riley &amp; Thelian (1999).</td>
<td>P, C</td>
<td>Home care and attachment guidance for culturally diverse population.</td>
<td>Four case studies of home intravenous therapy nursing in the Community setting with specific focus on interventions and outcomes of that care.</td>
<td>Although each case study highlights the importance of individual assessments and specific nursing interventions nurse sensitive outcomes are not discussed.</td>
<td></td>
</tr>
<tr>
<td>Robinson (1999).</td>
<td>P, L</td>
<td>Home visiting.</td>
<td>A systematic review of domiciliary health visiting literature in order to assess effectiveness against a set of outcomes. The summary paper lists outcomes to support effectiveness of home visiting with parents and children.</td>
<td>Some of these outcomes were improved breast feeding rates and improved parenting skills and quality of home environment. In addition, reports on insufficient evidence on outcomes such as the mother’s return to work or the incidence of child illness, outcomes that may indeed be influenced by other members of the family or health professionals as opposed to the health visitor alone.</td>
<td></td>
</tr>
</tbody>
</table>
### Midwifery

<table>
<thead>
<tr>
<th>Author / Year / Title / Country</th>
<th>Type of Document</th>
<th>Setting / Type of Patients / Presenting Condition</th>
<th>Study Design / Summary Description</th>
<th>Selective Findings / Discussion</th>
<th>Outcome Variables Measured/Instrument (I) Outcomes Measured (OM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vincent, Hastings-Tolsma, &amp; Park (2004). Down the rabbit hole: examining outcomes of nurse midwifery care. USA</td>
<td>P, S Midwifery care.</td>
<td>Retrospective study in one teaching hospital using the Nurse–Midwifery Clinical Data Set (NMCDS). Questions arise in the discussion as to the validity of the NMCDS and whether it is sensitive to quality measures.</td>
<td>Nurse–Midwifery Clinical Data Set by the American College of Nurse-Midwives. Outcomes measured: • mode of delivery • complications • infant activity (muscle tone, pulse grimace, skin colour and respiration).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX ONE  Nursing and Midwifery Interventions and Outcomes – Research Literature Summary Table
Dear Colleague,

The National Council is currently conducting a project concerning the measurement of outcomes of nursing and midwifery interventions. This involves establishing the extent to which nurses and midwives working in clinical practice, measure the outcomes of their interventions (including multidisciplinary and interdisciplinary interventions) and for what purposes.

Information gathered during this preliminary phase of the project will be used to inform the development of a resource pack, with the overall aim of enabling nurses and midwives to enhance their contribution to the quality of patient/client care.

The National Council now requests your assistance and expertise in carrying out this phase of the project. You have been identified by your director of nursing/midwifery as the appropriate person within your organisation/service to provide this assistance. We would appreciate it if you would complete this questionnaire as soon as possible.

If you require any further information or clarification, please do not hesitate to contact the undersigned at (01) 8825300.

All responses will be treated in strictest confidence.

Please return the questionnaire in the FREEPOST envelope provided on or before Monday 28th November 2005.

Yours sincerely

Christine Hughes
Professional Development Officer
**Evaluation of the Extent of the Measurement of**

### SECTION 1 BACKGROUND INFORMATION

**Q1: What is your job title?** (Tick one box only)  
<table>
<thead>
<tr>
<th>Job Title</th>
<th>Code (For office use only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant director of nursing/midwifery</td>
<td></td>
</tr>
<tr>
<td>Clinical facilitator</td>
<td></td>
</tr>
<tr>
<td>Clinical nurse/midwife manager</td>
<td></td>
</tr>
<tr>
<td>Clinical nurse/midwife specialist</td>
<td></td>
</tr>
<tr>
<td>Nursing/midwifery practice development co-ordinator</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

**Q2: Which of the following best describes your organisation/service provider?** (Tick one box only)  
<table>
<thead>
<tr>
<th>Organisation/Service Provider</th>
<th>Code (For office use only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children’s hospital/care setting</td>
<td></td>
</tr>
<tr>
<td>Community/primary care service</td>
<td></td>
</tr>
<tr>
<td>General hospital</td>
<td></td>
</tr>
<tr>
<td>Intellectual disability service</td>
<td></td>
</tr>
<tr>
<td>Obstetric/midwifery hospital/care setting</td>
<td></td>
</tr>
<tr>
<td>Older person care setting</td>
<td></td>
</tr>
<tr>
<td>Psychiatric hospital/service</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

**Q3: To which of the following bands does your organisation/service provider belong?** (Tick one box only)  
<table>
<thead>
<tr>
<th>Band Number</th>
<th>Code (For office use only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 1</td>
<td></td>
</tr>
<tr>
<td>Band 2</td>
<td></td>
</tr>
<tr>
<td>Band 3</td>
<td></td>
</tr>
<tr>
<td>Band 4</td>
<td></td>
</tr>
<tr>
<td>Band 5</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

**Q4: What is the bed capacity and/or number of client places within your organisation/service?** (Please include day services, residential care, respite care, etc, in the total. Tick one box only)  
<table>
<thead>
<tr>
<th>Bed Capacity/Number of Client Places</th>
<th>Code (For office use only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50</td>
<td></td>
</tr>
<tr>
<td>50-100</td>
<td></td>
</tr>
<tr>
<td>101-150</td>
<td></td>
</tr>
<tr>
<td>151-200</td>
<td></td>
</tr>
<tr>
<td>201-250</td>
<td></td>
</tr>
<tr>
<td>251-300</td>
<td></td>
</tr>
<tr>
<td>301-350</td>
<td></td>
</tr>
<tr>
<td>351-400</td>
<td></td>
</tr>
<tr>
<td>401-500</td>
<td></td>
</tr>
<tr>
<td>501-1000</td>
<td></td>
</tr>
<tr>
<td>More than 1000</td>
<td></td>
</tr>
<tr>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 2
USE OF INSTRUMENTS, SCALES AND ASSESSMENT TOOLS

The purpose of this section is to find out about the instruments/scales/assessment tools used to measure nursing, midwifery, multidisciplinary/interdisciplinary and other types of interventions, if any.

Q6: Does your organisation/service use any instruments/scales/assessment tools for measuring the outcomes of any nursing, midwifery, multidisciplinary/interdisciplinary or other interventions? This may include instruments/scales/assessment tools relating to pain management, pressure area prevention, depression inventory, behaviour management, breast-feeding, etc.

Yes ☐ No ☐ If yes please specify: ____________________________

Q7: If you ticked yes, please complete Table 7 on pages 4 and 5 before proceeding to question 9 below.

Q8: If you previously indicated that your organisation/service does not use any instruments/scales/assessment tools to measure the outcomes of nursing/midwifery/interdisciplinary interventions at present, does the organisation/service plan to introduce such instruments/scales/assessment tools?

Yes ☐ No ☐ Not sure ☐

Q9: Are there any other comments you would like to make about the use of instruments/scales/assessment tools to measure the outcomes of nursing/midwifery interventions?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Thank you for taking the time to complete this questionnaire.

Please return the questionnaire in the FREEPOST envelope provided on or before Monday 28th November 2005 to:
Christine Hughes,
Professional Development Officer,
National Council for the Professional Development of Nursing and Midwifery,
6-7 Manor St. Business Park,
Manor St., Dublin 7.
### SECTION 2 TABLE 7

#### Instructions for Completing Table 7

- Please note that this table is spread over two pages (Pages 4 & 5).
- Please use one line per instrument/scale/assessment tool used. If you do not have sufficient space to describe the instrument/scale or to include all instruments/scales/assessment tools used in your organisation/service, please photocopy the two-page table and submit with your completed questionnaire.
- When you have completed Table 7, please return to question 9 on page 3.

<table>
<thead>
<tr>
<th>7A Name of instrument/scale/tool used (if known)</th>
<th>7B Target(s) of intervention e.g., pain management, pressure area prevention, depression inventory, behaviour management, breast-feeding, etc.</th>
<th>7C Type of intervention measured</th>
<th>7D Stage(s) at which instrument/scale/tool used</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAMPLE ONLY Personal Outcome Measures</td>
<td>Quality of life person-centred plan</td>
<td>Nursing</td>
<td>Midwifery</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

NATIONAL COUNCIL FOR THE PROFESSIONAL DEVELOPMENT OF NURSING AND MIDWIFERY
### Outcomes of Nursing/Midwifery Interventions

<table>
<thead>
<tr>
<th>7I Extent to which instrument/scale/tool was used</th>
<th>7F Method of completing instrument/scale/tool</th>
<th>7G Frequency of completion of instrument/scale/tool</th>
<th>7H Training provided in use of instrument/scale/tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**PAGE 5**
The next phase of this study will involve focus group interviews, the findings of which will contribute to the development of a resource pack for nurses and midwives with the overall aim of enabling them to enhance their contribution to the quality of patient/client care.

If you would like to participate in the focus group interviews (to be held early in 2006), please complete this form and return it to the National Council.

**Respondent's Details**

Prefix | First Name | Surname
---|---|---
Job Title
Address for correspondence
Contact telephone number (optional) | Contact e-mail address (optional)
Signature

If you prefer, please detach this page from the questionnaire and return under separate cover on or before Monday 28th November 2005 to:

Christine Hughes,
Professional Development Officer,
National Council for the Professional Development of Nursing and Midwifery,
6-7 Manor St. Business Park,
Manor St., Dublin 7.

Please note: You may or may not be contacted about participating in the focus groups, depending on the number of people applying.

All information in this application form will be treated in confidence.
1. Introductions
   a) Anonymity and confidentiality
   b) Confirm composition of group (service type)
   c) Outline project: phase 1 (questionnaire); phase 2 (focus groups); phase 3 writing up of report and development of resource pack

2. Check what participants understand by:
   a) nursing/midwifery interventions and outcomes
   b) tools used to measure interventions and outcomes (names, aims; recording methods; reliability & validity issues)
   c) audit (types, purposes, results)
   d) cost-effectiveness

3. Check participants’ experience of:
   a) participation on accreditation schemes, other quality initiatives
   b) tools for measuring interventions and outcomes
   c) training in the use of tools, if any
   d) factors enhancing use of tools (e.g., clear terminology; electronic vs paper)
   e) factors negatively affecting the use of tools
   f) audit and cost-effectiveness

4. What would participants like to see in a resource pack
   a) Guidance in designing own tools
   b) Adapting tools
   c) Other suggestions
   d) Preferred formats (e.g., tick box, free text)

5. What resources do nurses and midwives need for measuring their interventions and outcomes?

6. In what other ways could nurses and midwives enhance their contribution to health service provision?

7. In what ways can the National Council help nurses and midwives involved in practice to enhance or emphasise their contribution to health service provision?

   In addition to 1-7 above the following questions were put to the participants from the centres of nurse education and third-level education sector.

8. What role can or do the third-level institutions and centres of nurse education play in training and educating nurses/midwives about interventions and outcomes measurement?

9. Are there any relevant projects currently underway?

---

1 In relation to 3c above, participants in the session for education providers were asked to distinguish between the respective roles of recipients and providers of training.
APPENDIX FOUR
Examples of International Perspectives on Nursing Interventions

Telephone interventions in a nurse-led service dealing with discharging of patients from an emergency assessment area

- Offer reassurance
- Clarify medicine regime
- Early detection of side-effects
- Clarify any misunderstandings the patient may have
- Clarify discharge and follow-up details
- Clarify medical details with members of discharging team
- Remind patient about compliance with treatment and follow-up
- Invite back to the emergency assessment area if medical decline
- Offer nursing advice
- Refer to consultant nurse for follow-up home visit
- Domiciliary visit (by consultant geriatrician)
- Refer to day hospital
- Refer to outpatient department
- Refer to community assessment rehabilitation team or other outreach team
- Phone/fax GP and keep him/her informed
- Order small items of equipment


Interventions Made by Nurses with Stroke Survivors Following Discharge to Home (as classified by Nursing Interventions Classification domains and interventions)

- Case management
- Health care information exchange
- Health system guidance
- Surveillance
- Risk identification
- Fall prevention
- Active listening
- Teaching disease process
- Presence
- Teaching prescribed medication
- Medication management
- Family support
• Family involvement promotion
• Family integrity promotion
• Nutrition management


### Dutch study of nursing interventions applied by outreach nurses to stroke patients’ problems


<table>
<thead>
<tr>
<th>PROBLEMS RAISED BY PATIENTS AND CARERS</th>
<th>SUPPORTIVE LISTENING</th>
<th>REASSURING OR ENCOURAGING</th>
<th>ADVISING</th>
<th>INFORMING</th>
<th>BROCHURES</th>
<th>REFERRAL TO GP</th>
<th>REFERRAL TO NEUROLOGIST</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disease prevention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td><strong>Physical</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Headache/pain</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Poor vision</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td><strong>Cognitive</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor memory</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor concentration</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Emotional</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Problem with acceptance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mobility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem with walking</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Unmet needs for services</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home help</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>•</td>
</tr>
</tbody>
</table>

### Interventions itemised on the Night Nursing Care Instrument (NNCI)

#### Nursing interventions
• Attention has been given to the patients’ wishes regarding night care
• The patients were informed about the planned night-time procedures
• When necessary the patients were assisted with, e.g., visits to the toilet, bedpan, change of body position in bed, etc
• The patients’ individual needs for food and drink were satisfied during the night
• The patients had the opportunity to converse with the nurse about any problems or sleeplessness during the night

• The patients were observed/monitored in an adequate manner


**A Nursing Intervention Strategy for Patients with Cancer – Some Psycho-Social Components**

• Reduce patient’s depression by allowing him to share feelings about having cancer. Recognise patient’s feeling of losing control. Discuss positive aspects of treatment.

• Reduce patient’s anxiety by establishing a sustained unhurried interaction pattern while interacting with him. Try to reduce anxiety through reflection on positive atmosphere and re-orientation of positive feelings. Encourage him to express positive emotions.

• Promote effective coping by encouraging patients and family members to learn about treatment plan.

• Provide appropriate physical care while teaching patient to take over care as able.

• Respect patient’s wish to refuse active therapy when there is limited potential for a response to therapy.

• Reduce anxiety about death by facilitating emotional support.

• Allow for the possibility that certain symptoms (e.g., loss of appetite) may be due to progression of cancer.

• Facilitate emotional support for the patient by giving information. Determine how much information he wants about his illness and treatment, his perception of his illness and his diagnosis.

APPENDIX FIVE
Tools Identified by the Focus Group Participants for Measuring the Outcomes of Interventions

Audit
Barthel Scale/
Index
Beck’s depression and anxiety scale
Behavioural Assessment
Blood transfusion neonate/Haemovigilance
Body Mass Index (BMI)
Braden Scale
Breast-feeding tools
Bristol motivation scale
Bristol Stool Guide
Care pathways
Care planning
Centile charts (growth and development)
Clinical tools including scans and tests
Concordance Package
Continence assessment
Control levels
Dijkstra dependency score
Department of Health and Children audit and monitoring requirements
Dependency scoring scale
Discharge planning
Disruptive levels
Distress levels
Documentation
Drugs and alcohol

Edinburgh Post-Natal Depression Scale
Elderly dependency scale
Essence of Care
European Pressure Ulcer Advisory Panel
European Organisation for Research and Treatment of Cancer (EORTC)
Fagerstrom Nicotine Dependency/Tolerance Score
Falls prevention and risk assessment
Fatigue assessment
Fluid balance charts
Focus groups
General health questionnaire.
Geriatric depression scale
Geriatric rating scales
Glasgow Coma Scale
Hospital In-Patient Enquiry Scheme (HIPE)
Integrated care pathways
Karnofsky Performance Status Scale
Lactation specialist
Length of stay
Liverpool Care Pathway [for the dying patient]
Liverpool University Neuroleptic Side-Effect Rating Scale (LUNSER)
Malnutrition Universal Screening Tool Wound Assessment (MUST)
Manual handling tools
Medication safety assessment
Mental care mapping
Mental health risk assessment.
Mini Mental Health Score
Mini-Mental Test Assessment Guide
Models of care
Modified Emotion Assessment Scale
Moving and Handling
National Cancer Institute’s (NCI) Breast Cancer Risk Assessment Tool
Neglect
National Institute for Clinical Excellence (NICE) Guidelines (vascular assessment)
Norton Score
Nurse dependency scales
Nursing process
Nutrition assessment and scales
Observation charts (example: wound care and pathways for chest pain or respiratory patients)
OK Health Check
Oral Assessment Guide
Oral hygiene tools
Orem’s model
Pain assessment scales/tools/audit tools
Patient satisfaction scale/survey or complaint system
Pre-operative assessment
Pressure area/sore risk assessment tools [non-specific]
Psychological interventions
Qualitative and quantitative data collection.
Quality of care
Quality of life
Questionnaires
Rating scale including in Tidal Nursing Model
Risk assessment/management tools [non-specific]
Roper-Logan-Tierney model of nursing
Radiation Therapy Oncology Group (RTOG)
Safe Handling and Moving
Sainsbury Risk Assessment Tool [Sainsbury Centre for Mental Health]
Scope of practice
Standard setting
Sterling
Suicide
Telephone outcomes
Temperature, pulse and respiration.
Tissue viability score
Training of link staff
Triage
Urodynamics
Violence
Waterlow Scale
Wound care/wound healing assessments/audits [non-specific]


BIBLIOGRAPHY


