NURSING AND MIDWIFERY QUALITY CARE-METRICS:

CHILDREN'S SERVICES RESEARCH REPORT

JUNE 2018

NURSING & MIDWIFERY QUALITY CARE-METRICS

Office of the Nursing & Midwifery Services Director

Tús Áite do Shábháilteacht Othar
Patient Safety First

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

NURSING AND MIDWIFERY QUALITY CARE-METRICS:

Children's Services Research Report

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Foreword

Dear Colleagues,

As nurses and midwives, the continuous improvement of patient/client care is a central component of our ethical responsibility, professional accountability and nursing and midwifery values. Every day we engage in numerous healthcare interventions where our knowledge, clinical expertise and professional judgement guide our practice to ensure high quality, safe care delivery. Knowing however what quality nursing and midwifery care is, and how to measure it has always been a challenge, both in Ireland and internationally.

Many quality improvement approaches in healthcare tend to focus on outcomes, such as morbidity, length of stay, readmission rates, infection rates, number of medication errors and pressure ulcers. Measuring outcomes is an important indicator for healthcare and provides a retrospective view of the quality and safety of care. To determine however the quality of nursing and midwifery care, and in particular our contribution to patient safety and continuous quality improvement, we need to be able to clearly articulate and measure what it is that we do. These are the important aspects of our daily professional practice, the fundamentals of care, often referred to as our clinical care processes.

In 2016, my Office commissioned a national research study to establish from both the academic literature and the consensus of front-line nurses and midwives, the important dimensions of nursing and midwifery care that should be measured, reflecting on the processes by which we provide care, and the values underpinning our practice. The voice of nurses and midwives in this research has been the major force to communicate the professional standards for excellence in care quality. The culmination of this work has resulted in a suite of seven Quality Care- Metrics reports.

I wish to acknowledge the clinical leadership of all the nurses and midwives who contributed and engaged in this research. In particular I wish to thank the Directors of Nursing and Midwifery for their support, the Directors and Project Officers of the Nursing and Midwifery Planning and Development Units, members of the workstream working groups and the research teams of University College Dublin, University of Limerick, and the National University of Ireland Galway who guided us through the academic journey. I would also like to acknowledge the Patient Representatives for their contribution and the expert external reviewer, Professor Mary Ellen Glasgow, Dean and Professor of Nursing, Duquesne University, Pittsburgh, USA. Details of the governance structure and membership of the range of stakeholders who supported this work are outlined in the Appendices.

Finally, I wish to convey my thanks to Dr Anne Gallen for taking the national lead to co-ordinate this significant quality initiative that supports nurses and midwives at the point of care delivery to engage in continuous quality improvement and positively influence the patient/client experience.

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Interim Nursing & Midwifery Services Director
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Dr. Anne Gallen

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Quality Care-Metrics
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Abbreviations

ADON	Assistant Director of Nursing
ASSIA	Applied Social Sciences Index and Abstracts
CAMHS	Child and Adolescent Mental Health Services
CDSR	Cochrane Database of Systematic Reviews
CENTRAL	Cochrane Central Register of Controlled Trials
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CNM	Clinical Nurse Managers
CNS	Clinical Nurse Specialists
DARE	Database of Abstract of Reviews of Effects (DARE)
DON	Director of Nursing
Embase	Excerpta Medica database
HCAI	Healthcare Associated Infection
HIQA	Health Information and Quality Authority
HSE	Health Services Executive
ID	Identification
IPC	Infection Prevention and Control
ISBAR	Identify-Situation-Background-Assessment-Recommendation
MDA	Misuse of Drugs Act
NHS	National Health Service
NICE	The National Institute for Health and Care Excellence
NMBI	Nursing Midwifery Board of Ireland
NMPDU	Nursing and Midwifery Planning Development Units
NM-QCM	Nursing & Midwifery Quality-Care Metrics
NPDO	Nurse Practice Development Officers
ONMSD	Office of the Nursing and Midwifery Services Director
PEWS	Paediatric Early Warning System
PHN	Public Health Nurse
PRN	Pro re nata (when required)
REC	Research Ethics Committee
QCM	Quality Care-Metrics
TCD	Trinity College, Dublin
UCD	University College, Dublin

Acknowledgements

The Nursing and Midwifery Quality Care-Metrics Project was commissioned by the HSE Office of Nursing and Midwifery Services. The research team has worked closely with the Nursing and Midwifery Planning and Development Unit (NMPDU) Directors, Project Officers and Workstream Working Group members. Nurses in children's services nationally have also contributed greatly to the project by completing the Delphi Rounds. The team is most grateful to all the NMPDU staff, Workstream Working Group members and all participants who have helped develop this evidence-based suite of quality care process metrics and indicators for children's nursing services.

We would also like to acknowledge the contribution of Professor Mary Ellen Glasgow, Dean and Professor of Nursing, Duquesne University, Pittsburgh, USA, who contributed as the international expert reviewer to the research study.

Executive Summary

Introduction

In 2012, the Nursing and Midwifery Planning Development Units (NMPDU) of the North West, North East and Dublin North enabled and supported healthcare organisations in acute care settings, older person's settings, midwifery services, children's hospitals, mental health services, intellectual disability services and public health nursing to embed a system to measure and monitor a range of nursing and midwifery care processes. A web-based software system entitled "Test Your Care" was contracted from the Heart of England NHS Foundation Trust and a core suite of nursing and midwifery process metrics were developed based on established standards from both the professional (Nursing and Midwifery Board of Ireland (NMBI)) and organisational regulators (Health Information and Quality Authority (HIQA), Mental Health Commission); and from evidence of best practice. In 2014, demand increased from Directors of Nursing and Midwifery to roll out metrics nationally. As a result, the Office of Nursing and Midwifery Services Director agreed to provide the national direction and support to embed a system of nursing and midwifery metrics within healthcare organisations. This national project entitled Nursing and Midwifery Quality Care-Metrics has enabled the development and national agreement of an evidence-based set of metrics and indicators that can be used consistently to measure nursing and midwifery care processes in the areas of acute care, children's nursing, intellectual disability nursing, mental health nursing , midwifery, older person nursing and public health nurse care settings.

Project Aim and Objectives

The aim of the children's nursing services aspect of the project was to develop a suite of metrics and indicators, which can be used to measure the quality of children's nursing care processes. The specific objectives were to: identify current metrics and indicators available, and in use in children's nursing, nationally and internationally; develop consensus on the metrics to be measured in the future; develop consensus on the indicators for the prioritised metrics; and elicit consensus of expert stakeholders on metrics and indicators for use in the Irish context.

Design

A comprehensive design was put in place to build consensus on the metrics and indicators for use in children's services in Ireland using four discrete phases:

1 A systematic literature review to identify metrics that have been used nationally and internationally and the indicators for same

2 A two-round online Delphi survey to develop consensus on the metrics to be measured

3 A two-round online Delphi survey to develop consensus on the indicators for the prioritised metrics

4 A face-to-face consensus meeting with key stakeholders to review the findings and build consensus on metrics and indicators.

Conclusion

Through using a robust collaborative research methodology, a suite of 8 nursing quality care process metrics and 67 associated process indicators were developed for children's nursing services.

Recommendation

The implementation of these process metrics and indicators into the healthcare setting is due to begin in 2018. An evaluation of the developed metrics and indicators from the Nursing and Midwifery Quality Care-Metrics Project is recommended using a robust research design. This will enable the examination of the impact of the metrics and indicators on nursing and midwifery care processes, while attempting to control for risk of biases.

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Introduction

To provide evidence of the nursing and midwifery contribution to high quality, safe patient care, there is a requirement to generate data that provides assurance that national standards of care are being met and that care delivery is based on best international practice. This required the development and national agreement of a generic set of metrics and indicators that could be used consistently to measure nursing and midwifery care processes. In 2014, demand increased from Directors of Nursing & Midwifery to roll out metrics nationally. As a result, the Office of the Nursing & Midwifery Services Director agreed to provide the national direction and support within a guiding framework to embed a system of nursing and midwifery metrics within healthcare organisations where Directors of Nursing/Midwifery specified the requirement.

To achieve this there was a need to critically review the utility of the existing suite of metrics and identify other relevant new metrics. The Office of Nursing & Midwifery Services Director established 7 workstreams in the areas of acute hospital care, older persons care, midwifery, children's nursing, public health nursing, mental health nursing and intellectual disability nursing and associated governance structures (Appendices 1, 2 and 3). Each workstream was tasked to validate the current metrics in use and to develop additional priority process metrics and indicators, to ensure that the final suite was as evidence-based and technically sound as possible (Maben et al. 2012). This would enhance the credibility of the findings and is more likely to facilitate acceptance by practitioners, the public and the wider healthcare system.

Measures of nursing and midwifery care processes (metrics and their associated indicators) encompass all transactions associated with how care is provided, from the technical delivery to the interpersonal relationships of care. A national research project was conducted to develop one common, evidenced-based metric system to measure quality nursing and midwifery care in Ireland. In order to critically review the scope of existing measures, as well as identify additional relevant measures for nursing and midwifery quality care processes, this project was comprised of four phases: a systematic literature review, a 2 round Delphi survey to identify priority metrics, a 2 round Delphi survey to identify and agree indicators for identified metrics, and a final consensus meeting with key stakeholders. This final report presents the findings for each phase of the project workstream focused on children's services.

Aim

To develop a suite of Nursing and Midwifery Quality Care-Metrics, and their indicators, which can be used to measure the quality of children's nursing care processes.

Objectives

1 To identify current metrics and indicators available, and in use, in children's nursing, nationally and internationally.

2 To develop consensus on the metrics to be measured.

3 To develop consensus on the indicators for the prioritised metrics.

4 To elicit consensus of expert stakeholders on metrics and indicators for use in the Irish context.

Research Design

A comprehensive design was put in place to build consensus on the metrics and indicators for use in children's services in Ireland using four discrete phases:

1 A systematic literature review to identify metrics that have been used in the respective fields and the indicators for same.

2 A two-round online Delphi survey to develop consensus on the metrics to be measured.

3 A two-round online Delphi survey to develop consensus on the indicators for prioritised metrics.

4 A face-to-face consensus meeting with key stakeholders to review the findings and build consensus on metrics and indicators.

Systematic Review

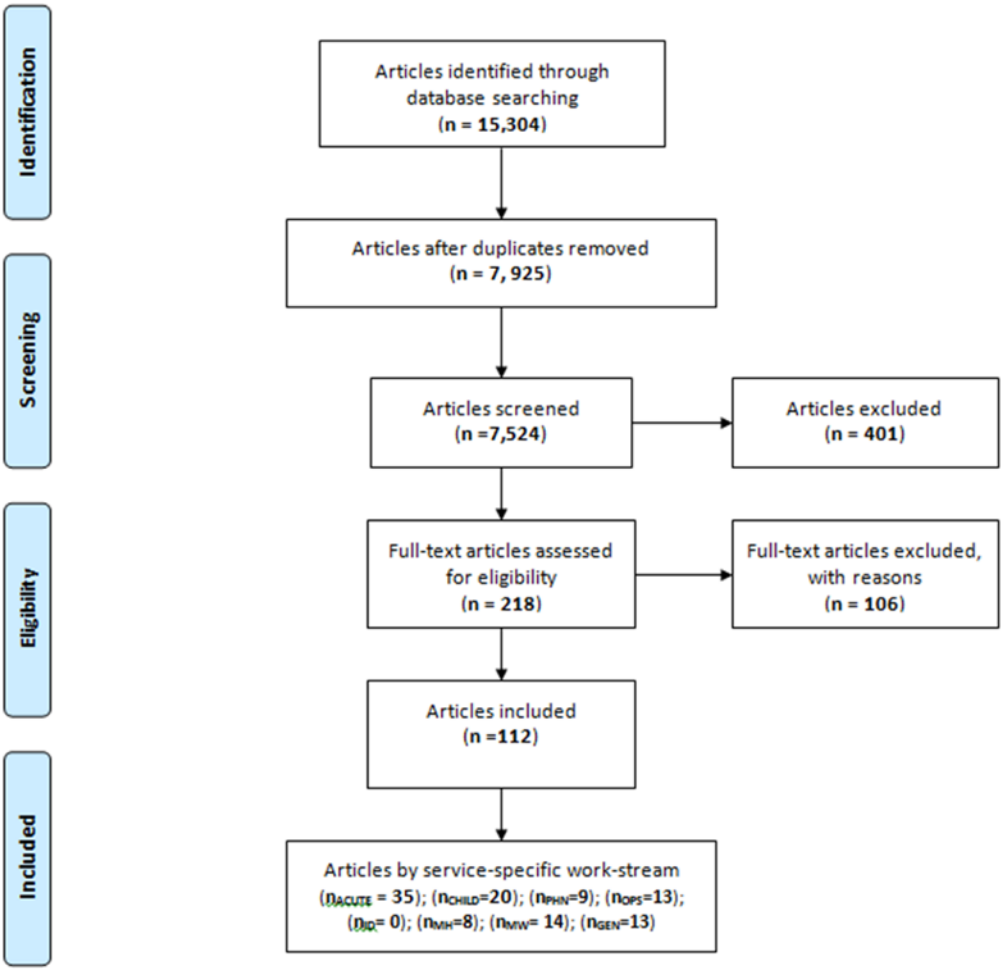
A systematic literature review was conducted across all workstreams to identify quality care process metrics and associated indicators for nursing and midwifery. A quality care process metric was defined as *a quantifiable measure that captures quality in terms of how (or to what extent) nursing care is being provided in relation to an agreed standard*. A quality care process indicator was defined *as a quantifiable measure that captures what nurses are doing to provide that care in relation to a specific tool or method*. A comprehensive search methodology was developed for published literature, which was executed through routine scientific database searches and supplemented with searches (a) for relevant clinical practice guidelines and (b) of professional body websites.

Eight databases were systematically searched including: Pubmed, Embase, PyscINFO, Applied Social Sciences Index Abstracts (ASSIA), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Database of Systematic Reviews (CDSR), Cochrane Central Register of Controlled Trials (CENTRAL), and Database of Abstract of Reviews of Effects (DARE). Studies were included if participants were registered nurses/midwives, as well as education programmes using nursing and midwifery metrics systems in acute, children's, intellectual disability, mental health, midwifery, older person, or public health nursing services or where participants were persons in receipt of nursing or midwifery care and services. Table 1 shows the screening criteria used in the NM-QCM systematic review. Included studies made a clear reference to nursing or midwifery care processes and identified a specific quality process in use or proposed use. Data extraction was conducted by two reviewers using a purposefully designed data extraction tool.

Table 1:
Screening criteria for NM-QCM systematic review

Criteria	Description	
	Include	Exclude
Focus of Study	Clear reference to measuring nursing/midwifery care processes in relation to a predetermined standard or statement of defined level of quality.	No reference to measuring nursing/ midwifery care processes in relation to a predetermined standard or statement of defined level of quality.
Participants	Registered nurses/midwives, as well as education programmes using nursing and midwifery metrics systems in general, acute, public health, older person, midwifery, children, intellectual disability, or mental health services; Persons in receipt of nursing or midwifery care and services.	An unregistered trainee of nursing, midwifery or other health care professional involved in the delivery of care or intervention as a mandatory part of gaining competency/registration; Or health care professionals without clear reference to nurses and or midwives, allied health care professionals in medicine.
Type of Study	No restriction	No restriction
Context / Setting	Nursing and Midwifery Care and Service Settings	No reference to nursing or midwifery services in care context or setting.
Publication Date	2007-2017	Any study published prior to 2007
Language	English	Any languages other than English

The search conducted across eight databases resulted in 15,304 citations. Following removal of duplicates, 7,925 unique references were identified and independently screened for selection. Following title and abstract screening, 218 citations were retained for full-text screening. Following full text screening, 112 articles were included upon the basis that they met the study's inclusion criteria. These articles were then tagged depending on their relevance to general, acute, children, intellectual disability, mental health, midwifery, older person, or public health nursing services and practice. The complete results of the systematic review of both academic and grey literature were then broken down in accordance with each workstream. A study selection process flow diagram for the children's workstream is displayed in Figure 1.



Adapted from: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009) Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLOS Medicine 6(7): e1000097. https://doi.org/10.1371/journal.pmed.1000097

Figure 1: Study selection process flow diagram for complete systematic review

Twenty studies were identified as relevant to children's nursing in this review. A further 95 documents were identified from grey literature, with 23 judged as relevant to children's nursing. From the combined literature 13 metrics were initially identified for inclusion in round 1 of the Delphi study on metrics. Of these 13 metrics, 5 already existed in practice in Ireland: medication management; nursing care plan; vital signs; invasive medical devices; and discharge planning.

The remaining 8 potentially new metrics included: nutrition; infection control; safeguarding, privacy and dignity; pain management; environment; nursing skills mix; patient/family experience; and early identification of adverse events. These findings were examined by an expert Workstream Working Group, comprised of a Director of Nursing, Assistant Directors of Nursing, Nurse Practice Development Officers, Clinical Nurse Managers; Clinical Nurse Specialists and a parent representative (Appendix 4). The group examined the suite of 13 metrics to determine their relevance to process. The metric titled "nursing skills mix" was removed as it was not deemed to be a process metric and the metric on adverse events was merged with vital signs, leaving a total of 11 metrics and associated indicators.

Delphi Process

A consensus study involving a modified Delphi technique was used, to allow for the addition by stakeholders of additional metrics and indicators (considered important but not identified through the systematic review), and to prioritise metrics and indicators for inclusion in the Children's Services Quality Care-Metrics. The Delphi technique, developed by Dalkey and Helmer (1963), is a widely accepted iterative process for achieving a convergence of opinion on a specific topic from experts within the discipline (Hsu 2007). A national online Delphi survey was conducted for children`s nursing services, consisting of two rounds of data collection and analysis to reach consensus on metrics, and two rounds of data collection and analysis to reach consensus on indicators.

Participant recruitment

The target population was all nurses working in children's nursing services. With the support of the ONMSD the survey was advertised nationally and senior clinical managers distributed information to nurses in their respective areas, inviting those who wished to participate to email the research assistant their contact details, including their email address. All potential participants had an opportunity to contact the research team directly to seek further information about the survey prior to making a decision to participate.

Procedure

In round 1 (metrics) an invitation e-mail was circulated to 337 potential participants who had expressed interest in the study. An online survey software system was used to distribute the survey and the survey was available for completion over a two week period. This survey presented 11 metrics and invited participants to rate the importance of each metric on a 9-point Likert scale as follows: 1-3 = not important, 4-6 = unsure of importance and 7-9 = important. To facilitate the capture of metrics not identified in the systematic review, we invited participants, in this round, to add any further 'new' metrics (as 'free-text' option and not requested to score) that they would consider important or relevant for measuring. The survey in round 2 (metrics) was sent to all participants who had participated in round 1. This survey had a similar layout to the round 1 survey and was again available for completion over a two week period. It included all the metrics from round 1, where 70% or more participants scored the metric as 7 to 9 and less than 15% of participants scored the metric as 1 to 3. Participants were presented with the mean score of each of the metrics. This survey also included additional new metrics identified from participants in round 1. Participants were asked to rate the importance of all of the metrics on the survey on the same 9-point Likert scale.

A two-round online Delphi survey was then completed to develop consensus on indicators for the prioritised metrics. In preparation for this the indicators identified from the literature were again examined by the Workstream Working group to determine their relevance to the evolving process. The group agreed on a total of 85 indicators for inclusion. In round

3 (indicators), to encourage participation, the decision was made to make the survey link available to all nurses working in children's services, rather than seeking individual expressions of interest. This survey presented the 85 indicators, under each of their associated metrics, and invited participants to rate the importance of each indicator on the 9-point Likert scale. This survey was available for completion over three weeks as it was during the summer holiday period. Similar to the survey on metrics, participants were invited to add any further 'new' indicators (as 'free-text' option and not requested to score) that they would consider important or relevant for measuring the respective indicators(s). The survey in round 4 (indicators) was sent to all participants who had participated in round 3 (indicators). This survey had a similar layout to the round 3 survey and was available for completion by participants over a two week period. It included all the indicators from round 3, where 70% or more participants scored the metric as 7 to 9 and less than 15% of participants score the indicator as a 1 to 3. Participants were presented with the mean score of each of these indicators from round 3. This survey also included additional new indicators identified from participants in round 3. Participants were asked to rate the importance of all of the indicators listed on a 9-point Likert scale.

Consensus meeting

Following completion of round 4 a consensus meetings was held with the Workstream Working Group, to review the findings from the Delphi surveys and build consensus on metrics and respective indicators. Guidelines for the conduct of this meeting were agreed across all workstreams (Appendix 5). Using a judgment framework developed by the research team (Appendix 6) a decision was made on the metrics and indicators to be retained.

Ethical considerations

The study proposal was reviewed and approved by the Research Ethics Committee, University College Dublin (LS-16-74-OConnor). An information pack including a letter of introduction and participant information leaflet was disseminated to potential participants, advising them of the purpose of the study, the purpose of the particular round of the study, how the data would be used and that confidentiality was assured. Potential participants were informed that participation was voluntary, and were invited to contact the researchers if they required any further information. Informed consent was assumed by completion of the survey.

Data analysis

Analysis of the surveys entailed examination of the mean scores for each metric or indicator ranked on the 9-point Likert scale. Consensus on inclusion of a metric or indicator was determined where 70% or more participants scored the metric or indicator as 7 to 9 and less than 15% of participants scored the metric or indicator as 1 to 3.

Results

Participants

Table 2
Demographic profile of the participants from all rounds

CHARACTERISTIC	Round 1 n =184	Round 2 n = 133	Round 3 n=141	Round 4 n=92
Grade n (%)				
Staff Nurse	29 (15.8)	19 (14.3)	18 (12.8)	11 (11.9)
Staff Midwife	2(1.1)	1 (0.8)	1 (0.7)	0
PHN	1(0.5)	1 (0.8)	0	0
CNM1	15(8.2)	8 (6)	7 (5)	1 (1.1)
CNM2	37(20.1)	22(16.5)	40 (28.4)	28 (30.4)
CNM3	12 (6.5)	10 (7.5)	10 (7.1)	8 (8.7)
CNS	32 (17.4)	22 (16.5)	23 (16.3)	17 (18.5)
Director of Nursing	3 (1.6)	2 (1.5)	2 (1.4)	0
Assistant Director of Nursing	14(7.6)	12(9)	6 (4.3)	8 (8.7)
Educator	27 (14.7)	22 (16.5)	23 (16.3)	11 (11.9)
Other	10 (5.4)	13(9.8)	11 (7.8)	9 (9.8)
Clinical Area n (%)				
Acute/Surgical Ward Children	16 (8.7)	6 (4.5)	6 (4.3)	6 (6.5)
Medical Ward Children	16 (8.7)	9 (6.8)	20 (14.1)	8 (8.7)
Intensive Care Unit	2 (1.1)	0	1 (0.7)	0
Paediatric Intensive Care Unit	11 (6)	6 (4.5)	5 (3.5)	6 (6.5)
Maternity	2 (1.1)	5 (3.8)	1 (0.7)	2 (2.2)
Neonatal Unit	7 (3.8)	1 (0.8)	8 (5.7)	2 (2.2)
Operating Theatre	1 (0.5)	2 (1.5)	3 (2.1)	3 (3.3)
Emergency Department	2 (1.1)	3 (2.3)	4 (2.8)	3 (3.3)
Out-Patients Department	15 (8.2)	13 (9.8)	16 (11.3)	9 (9.8)
Public Health/Community	2 (1.1)	1 (0.8)	2 (1.4)	0
Practice Development	15 (8.2)	10 (7.5)	11 (7.8)	13 (14.1)
Education	19 (10.3)	19 (14.3)	23 (16.3)	8 (8.7)
Other	71 (38.6)	57 (42.9)	41 (29)	32 (34.8)

Results rounds 1 and 2 metrics

Table 3
Comparison of results of metrics from rounds 1 and 2

METRIC	Round 1 % consensus	Round 2 % consensus
Medication management	96.5	98.5
Nursing care planning	87.9	92.3
Vital signs and adverse events	95.4	97.7
Invasive medical devices	86.7	85.4
Nutrition	72.8	70
Discharge planning	78.6	82.3
Healthcare associated infection prevention	90.2	91.5
Safeguarding privacy and dignity	82.1	86.9
Pain assessment and management	89	96.9
Environment*	55.5	
Patient /family experience	85.6	86.9
Additional metrics identified in round 1 n(%):		
Palliative care and end-of-life care	16 (8.7)	88.5
Consent and assent	16 (8.7)	80
Child and adolescent mental health	2 (1.1)	90.8
Experiences of the child / adolescent	71 (38.6)	77.7

*** did not reach consensus of 70% and was removed after round 1**

Results rounds 3 and 4 indicators

Table 4
Comparison of results of indicators for medication management

INDICATORS	Round 3 % consensus	Round 4 % consensus
A registered nurse is in possession of the keys for medicinal product storage.	88.1	90.6
All medicinal products are stored in a locked cupboard/locked fridge within a locked room.	82.5	89.3
High alert medicine is identified and stored appropriately, as per local policy.	88.8	96.4
All medication trolleys are locked and secured as per local organisational policy and open shelves on the medication trolley are free of medicinal products when not in use.	86.3	95.2
There is easy access to a drug formulary.	88.9	94.1
MDA drugs are checked and signed at each changeover of shifts by registered nursing staff (member of day staff and night staff).	92.1	96.4
Two signatures are entered for each administration of an MDA drug.	93.7	98.8
The MDA drug cupboard is locked and keys for the MDA cupboard are held by a registered nurse.	94.4	100
Responsibility for the keys is allocated to one registered nurse on a shift-by-shift basis.*	68.3	
MDA drug keys are kept separate from other medication keys.	78.6	88.1
The individual's prescription documentation provides details of individual's legible name and healthcare record number.	92.9	98.8
The individual's identification band has correct and legible name and healthcare record number or photo ID is in use.	92.9	99.9
The allergy status is clearly identifiable on the front page of the prescription chart.	92.9	95.2
Prescribed medication not administered have an omission code entered.	88.1	96.4
The individual's locker and bedside or surrounding environment are free of unsecured prescribed medicinal products.	88.1	91.6
The generic name is used for each drug prescribed.	84.9	89.3
The start date is recorded.	84.1	91.7
The prescription is written in un-joined letters.	86.5	88.1
The decimal point is clearly marked.	91.3	96.4
The correct legible dose of the drug is recorded and not abbreviated.	92.9	97.6
The route and/or site of administration is recorded.	92.9	96.4
The child's weight and date of weight are recorded on the front page of the prescription chart.	91.3	95.2
The frequency of administration is recorded and correct timings indicated.	92.1	95.2
The minimum dose interval and/or 24 hour maximum dose is specified for all "as required" or PRN drugs.	90.5	94.1
The prescription has a legible prescriber's signature (in ink).	89.7	92.7
Discontinued drugs are crossed off, dated and signed by prescriber.	88.1	95.3

*** did not reach consensus of 70% and was removed after round 3**

Table 5
Comparison of results of indicators for nursing care planning

INDICATORS	Round 3 % consensus	Round 4 % consensus
The Individual's name, date of birth and healthcare record number are on each page/ screen.	90.5	98.8
The admission date and time are recorded.	82.5	91.7
The presenting complaints/reason for admission/ attendance is recorded.	90.7	96.4
Next of kin/family support details are recorded.	90.5	97.6
Past medical/surgical history is recorded.	74.9	96.4
The allergy status is clearly identifiable on relevant nursing documentation.	95.2	95.2
Infection status /alert is recorded.*	87.3	98.8
A nursing care plan is evident and reflects the individual's current condition.	87.3	95.2
All sections of the nursing admission assessment documentation are completed within 24 hours of admission.	88.9	95.2
Nursing interventions are individualised, dated, timed and signed.	86.5	92.9
Evaluation of the nursing care plan is evident and has been updated accordingly.	89.7	95.2
All entries are dated and timed (24 hour clock).	92.1	97.6
All written records are legible, in permanent ink and signed.	84.1	98.8
All entries are in chronological order.	88.9	94.1
All abbreviations/grading systems are from a national or local approved list/system.	88.9	97.6
Alterations/corrections are as per NMBI guidance.	91.3	97.6
Student entries are countersigned by a registered nurse.	88.1	94

***new indicator identified in round 3**

Table 6
Comparison of results of indicators for discharge planning

INDICATORS	Round 3 % consensus	Round 4 % consensus
There is documented evidence of discharge planning.	84.1	86.9
There is evidence of individual and family involvement in the discharge plan.	81	87
A predicted date of discharge or estimated date of discharge is documented.*	57.9	

*** did not reach consensus of 70% and was removed after round 3**

Table 7
Comparison of results of indicators for nutrition

INDICATORS	Round 3 % consensus	Round 4 % consensus
Frequency of weight and height measurement.*	69	
Appropriate use of nutrition assessment tool.*	61.9	
Assessment of weight gain or loss.	72	83.3
Correct documentation of fluid intake and output.**		91.7
Centile (growth) charts are completed, as per local policy.	69.5	73.8
Evidence of appropriate referral pathways.	75.4	83.3
Specific information made available for breast feeding mothers.**		81
Evidence of measures to ensure safety of feeding.	79.4	82.1

* did not reach consensus of 70% and was removed after round 3

** new indicator identified in round 3

Table 8
Comparison of results of indicators for healthcare associated infection prevention

INDICATORS	Round 3 % consensus	Round 4 % consensus
Evidence of compliance with HIQA and NICE guidelines, i.e. following aseptic procedures and techniques prior to, during, and after patient interactions.	91.3	89.3
Using early warning scores and reports –PEWS, ISBAR.	95.2	96.4
Detecting cardinal vital signs of infection using early warning systems.	97.6	98.8
Infection status/alert recorded.	94.4	96.4
Evidence of appropriate action in event of infection.	94.5	97.6
Associated IPC guidelines available and accessible.	87.9	92.9
Communicating through effective and timely channels with relevant members of patient's family and care team.	89.7	91.7
Evidence of educating patient, families and carers about risk of infection and escalation.	92.1	92.9
Evidence that the care bundles for invasive medical devices are in use.	91.3	91.7

Table 9
Comparison of results of indicators for safeguarding privacy and dignity

INDICATORS	Round 3 % consensus	Round 4 % consensus
Assessment of risk undertaken, appropriate tool utilised and findings recorded.	81.7	85.7
Alerting the designated person in each organisation regarding suspicion of abuse and/or neglect in line with 'Children's First' legislation.	93.7	98.8
An assessment for the requirement for clinical holding has been conducted.	81	81
Evidence for alternatives to clinical holding were explored.	76.2	78.6
The reason for the application of clinical holding is documented.	79.4	84.5
There is evidence that informed consent was obtained or, at best, an interests assessment (discussion with individual/family) was undertaken.	85.7	91.7

Table 10
Comparison of results of indicators for pain assessment and management

INDICATORS	Round 3 % consensus	Round 4 % consensus
Pain assessment using appropriate pain scoring tools is undertaken, and recorded.	90.5	91.7
Evidence of appropriate management of pain documented in nursing documentation.	91.3	95.2
Evidence that pain care plan was initiated.	88.1	94
Re-evaluation of pain scores immediately, or within a specified period, following intervention.	89.7	95.2

Table 11
Comparison of results of indicators for experience of the child/ adolescent and family

INDICATORS	Round 3 % consensus	Round 4 % consensus
Appropriate tool used to measure and record child/adolescent/ family level of satisfaction during their hospital stay or on discharge.	70.6	70.2
Evidence of promotion of child/parent & family enablement as evidenced through a communication care plan.	76.2	76.2
Evidence of information being made available about optimal health care interventions.	76.2	71.4
Evidence of improvements in care delivery related to feedback from child / adolescent / family experiences.	71.4	72.6

Table 12
Comparison of results of indicators for vital signs monitoring / PEWS

INDICATORS	Round 3 % consensus	Round 4 % consensus
Evidence that documentation has been completed to record baseline measurements and reassessed physiological parameters using the appropriate resources [PEWS].	98.4	97.6
Identified changes in the patient's condition, monitoring and documenting deterioration in the patient's level of function, dependency, impairment and self-care behaviour [PEWS].	98.4	97.6
In each entry, PEWS is completed and totalled correctly in an appropriate age chart.	97.6	95.2
Communicated effectively and timely with relevant members of the multi-disciplinary team using a structured communication tool.	93.7	95.2
Escalated care appropriately, documenting the care provided to prevent further deterioration in the patient's condition.	92.9	97.6

Table 13
Comparison of results of indicators for palliative and end-of-life care

INDICATORS	Round 3 % consensus	Round 4 % consensus
Utilising appropriate referral pathway to team specialising in supports.	89.7	92.9
The appropriate end-of-life/palliative care plan is in place and updated accordingly.	91.3	95.2

Table 14
Comparison of results of indicators for child and adolescent mental health

INDICATORS	Round 3 % consensus	Round 4 % consensus
Initiation of appropriate care plan.	91.2	96.4
Evidence of appropriate referral pathways.	88.8	98.8
Evidence of a discharge plan and follow-up for the child / adolescent.	89.7	97.6
The child/adolescent/family member have been given contact details for advice / follow up with the appropriate team.	88.1	94

Findings from Consensus Meeting

A face-to-face meeting was held between the research team and the Children's Workstream Working Group on November 28th 2017. The purpose of the Consensus Meeting was to review the findings from the Delphi process and to build consensus on the prioritised metrics and respective indicators. Participants at this meeting were representative of key stakeholders in children's services with regards to grade and geographical representation. A parent representative was also present to contribute their experience as a service-user. In addition to the Workstream Working Group members, additional specialist experts from the field of children's nursing were present to add further clarity and validity to their respective suite of quality care process metrics and indicators. To ensure the Consensus Meeting was robust, the process was underpinned by five core guidelines, derived from the literature (Appendix 5). These guidelines identified the optimum approach to conduct a face-to-face consensus meeting and aided in the management of this process.

Group consensus was measured for each metric and indicator through the process of anonymous electronic voting. This method was used to facilitate the presentation of immediate results. Once again, consensus for mandatory inclusion of a quality care process metric or indicator was pre-set at 70 percent. To assist in the selection of Nursing and Midwifery Quality Care-Metrics, a judgement framework was developed (Appendix 6). This tool is a modified version of the eRegistries indicator evaluation tool by Flenady et al. (2016). It was designed as a guideline for the voting process and consisted of 4 domains; Process Focused, Important, Operational and Feasibility. Process Focused examined whether the metric or indicator contributes clearly to the measurement of nursing or midwifery care processes. The domain Important reflected on whether the contribution of the metric or indicator is significant in improving nursing or midwifery care processes. The Operational domain questioned whether reference standards are available or could be developed for the process metric. Feasibility referred to the ability to collect and report data on the prioritised metrics/indicators. Table 15 presents the 8 metrics and 71 indicators that remained for children's services at the conclusion of the consensus meeting. Three metrics were not retained. There was consensus that, in the acute setting of children's services, the specialism of palliative care and end-of-life care could not be measured on a day-to-day basis. The metric Experience of the Child/Adolescent was not retained. There was consensus that the indicator 'Evidence of promotion of child/parent and family enablement as evidenced through a communication care plan' was best placed under the nursing care planning metric. The indicator 'Evidence of information being made available about optimal health care interventions' was moved to the discharge planning metric. The metric safeguarding privacy and dignity was also not retained. There was consensus that three indicators under this metric were best placed under the metric child and adolescent mental health, and that the remaining two indicators would be brought back to the wider QCM group for further discussion.

Table 15
Metrics and indicators remaining following the consensus meeting

METRIC (% consensus)	INDICATORS (% consensus)
Medication Management (100)	A registered nurse is in possession of the keys for medicinal product storage. (100)
	All medicinal products are stored in a locked cupboard/locked fridge within a locked room. (100)
	High alert medicine is identified and stored appropriately, as per local policy. (100)
	All medication trolleys are locked and secured as per local organisational policy and open shelves on the medication trolley are free of medicinal products when not in use. (100)
	There is easy access to an up-to-date drug formulary. (100)
	MDA drugs are checked and signed at each changeover of shifts by registered nursing staff (member of day staff & night staff). (100)
	Two signatures are entered for each administration of an MDA drug. (100)
	The MDA drug cupboard is locked and security around access to the MDA cupboard is held by a registered nurse. (100)
	MDA drug keys are kept separate from other medication keys. (92)
	The individual's prescription documentation provides details of individual's legible name and healthcare record number. (100)
	The individual's identification band has correct and legible name and healthcare record number or photo ID is in use. (100)
	The allergy status is clearly identifiable on the front page of the prescription chart. (100)
	Prescribed medication not administered have an omission code entered. (100)
	The individual's locker and bedside/ or surrounding environment are free of unsecured prescribed medicinal products. (100)
	The generic name is used for each drug prescribed. (91)
	The start date is recorded. (100)
	The prescription is written in un-joined letters. (92)
	The decimal point is clearly marked. (100)
	The correct legible dose of the drug is recorded and not abbreviated. (100)
	The route and/or site of administration is recorded. (100)
	The child's weight and date of weight are recorded on the front page of the prescription chart. (100)
	The frequency of administration is recorded and correct timings indicated. (100)
	The minimum dose interval and/or 24 hour maximum dose is specified for all "as required" or PRN drugs. (92)
	The prescription has a legible prescriber's signature (in ink). (91)
	Discontinued drugs are crossed off, dated and signed. (92)

Nursing Care Planning (100)	The Individual's name, date of birth and healthcare record number are on each page/ screen. (100) The admission date and time are recorded. (100) The presenting complaints/reason for admission/ attendance is recorded. (100) Next of kin/family support details are recorded. (100) Past medical/surgical history is recorded. (100) The allergy status is clearly identifiable on relevant nursing documentation. (100) Infection status /alert is recorded. (100) Nursing care plans are evident and reflect the individual's current condition. (100) All sections of the nursing admission assessment documentation are completed within 24 hours of admission. (100) Nursing interventions are individualised, dated, timed and signed. (100) Evaluation of the nursing care plan is evident and has been updated accordingly. (100) All entries are dated and timed (24 hour clock). (100) All written records are legible, identifiable and may be tracked. (100) All entries are in chronological order. (100) All abbreviations/grading systems are from a national or approved list/system. (100) Alterations/corrections are as per NMBI guidance. (100) Student entries are countersigned by a registered nurse. (100) There is evidence that informed consent was obtained or at best interests assessment (discussion with individual/family) was undertaken.* (100) Evidence of promotion of child/parent and family enablement as evidenced through a communication care plan. ** (100)
Discharge Planning (100)	There is documented evidence of discharge planning. (100) There is evidence of individual and family involvement in the discharge plan. (100) There is evidence of information being made available about optimal health care interventions. (100)**
Nutrition (100)	Assessment of weight. (90) Correct documentation of fluid. (100) Specific information is made available for breastfeeding mothers. (100)
Healthcare Associated Infection Prevention (100)	Using early warning scores and reports –PEWS, ISBAR. (100) Detecting vital signs of infection using early warning systems. (100) Infection status/alert is recorded. (100) Evidence of appropriate nursing action in event of HCAI. (73) Associated IPC guidelines are available and accessible. (88) Communicating through effective and timely channels with relevant members of patient's family and care team about risk of infection. (91) Evidence that the care bundles for invasive medical devices are in use. (100)
Pain Assessment and Management (100)	Pain assessment using appropriate pain scoring tools is undertaken, and recorded. (100) Evidence of appropriate management of pain documented in nursing documentation. (100) Evidence that pain care plan was initiated. (100) Re-evaluation of pain scores immediately, or within a specified period, following intervention. (100)

Vital Signs Monitoring / PEWS (100)	Evidence that documentation has been completed to record baseline measurements and reassessed physiological parameters using the appropriate resources [PEWS]. (100)
	Identified changes in the patient's condition, monitoring and documenting deterioration in the patient's level of function, dependency, impairment and self-care behaviour [PEWS]. (100)
	In each entry, PEWS is completed and totalled correctly in an appropriate age chart. (92)
	Outcome communicated effectively and timely with relevant members of the multi-disciplinary team using a structured communication tool. (100)
	Care is escalated timely, documenting the care provided to prevent further deterioration in the patient's condition. (100)
Child and Adolescent Mental Health (100)	Initiation of appropriate care plan. (92)
	Evidence of appropriate referral. (82)
	The child/adolescent/family member have been given contact details for advice / follow up with the appropriate team. (82)
	Evidence for alternatives to clinical holding were explored. (70)***
	The reason for the application of clinical holding is documented. (70)***

* **consensus to move this from the metric Safeguarding Privacy and Dignity**

** **consensus to move this from the metric Experience of the Child/Adolescent**

*** **consensus to move this from the metric Safeguarding Privacy and Dignity**

After the consensus meeting, the metrics and their respective indicators were further reviewed by the Steering Group to align wherever possible the language used across all seven workstreams. This was to ensure best fit with the 'Test Your Care System'. Following this, the suite of 8 metrics and 67 indicators was then finalised (Table 16).

Table 16
Final suite of metrics and indicators

METRIC	INDICATORS
Medication Management	Security for the storage of medicinal products is managed by the registered nurse
	All medicinal products are stored in a locked cupboard/locked fridge or within a locked room
	Where medication trolleys are in use, they are locked and secured as per local organisational policy and open shelves on the medication trolley are free of medicinal products when not in use
	High alert medicine is identified and stored appropriately, as per local policy
	There is easy access to an up-to-date drug formulary
	Misuse of Drugs Act (MDA) drugs are checked and signed at each changeover of shifts by registered nursing staff (member of day staff & night staff)
	Two signatures are entered for each administration of an MDA drug
	The MDA drug cupboard is locked and security around access to the MDA cupboard is held by a registered nurse
	Security for the storage of MDA drugs is kept separate to security for other medication
	The child's prescription documentation includes their legible name and healthcare record number
	The child's identification band has correct and legible name and healthcare record number/unique identifier
	The child's allergy status is clearly identifiable on the front page of the prescription chart
	The child's weight and date of weight are recorded on the front page of the prescription chart
	The child's locker and bedside/surrounding environment are free of unsecured prescribed medicinal products
	The generic name is used as appropriate for each medicine precribed
	The start date of each prescribed medication is recorded
	The prescription is written in un-joined letters
	The decimal point is clearly marked
	The correct legible dose of the medication is recorded with correct use of abbreviations
	The route of medication administration is recorded
	Prescribed medication not administered have an omission code entered and appropriate action taken
	The time of medication administrations is as prescribed
	The minimum dose interval and/or 24 hour maximum dose is specified for all pro re nata (PRN) medication
	The prescription has an identifiable prescriber's signature
	Discontinued medications are crossed off, dated and signed by a person who has prescriptive authority.

Nursing Care Planning	The child's name, date of birth and healthcare record number/unique identifier are on each page/ screen
	The child's admission date and time are recorded
	The child's presenting complaints/reason for admission/ attendance is recorded
	The child's next of kin/family support details are recorded
	The child's past medical/surgical history is recorded
	The child's allergy status is clearly identifiable on relevant nursing documentation
	All sections of the nursing admission assessment documentation are completed within 24 hours of admission
	Nursing care plans are evident and reflect the child's current condition
	Nursing interventions are individualised, dated, timed (using 24 hr clock) and signed
	Evaluation of the nursing care plan is evident and has been updated accordingly
	All nursing records are legible and identifiable
	All nursing entries are in chronological order
	All abbreviations/grading systems used in the nursing record are from a national or approved list/system
	All alterations/corrections to the nursing record are as per NMBI guidance
	Student entries are countersigned by a registered nurse
	There is evidence of promotion of child and family enablement documented in a communication care plan
Discharge Planning	There is documented evidence of discharge planning
	There is evidence of involvement of the child and family in the discharge plan
	There is evidence of the provision of post discharge advice to the child/family
Nutrition	There is evidence of ongoing monitoring of the child's weight
	There is evidence that child's fluid balance has been assessed and managed
	Information and support is made available for breastfeeding mothers
Healthcare Associated Infection Prevention	The child's Infection status/alert is recorded
	Associated Infection Prevention and Control guidelines are available and accessible
	There is evidence of appropriate nursing action in the event of a Healthcare-Associated Infection
	The child's infection status and any associated risk is communicated to the family and multidisciplinary team
	There is evidence that a care bundle has been completed for each invasive medical device in use
Pain Assessment and Management	The child's pain is assessed and recorded using a developmentally appropriate pain scoring tool
	There is evidence that a pain care plan was initiated
	There is evidence that the child's pain management is recorded in nursing documentation
	Re-evaluation of pain scores are recorded before and after a pain relieving intervention
Vital Signs Monitoring / PEWS	The child's baseline physiological observations were assessed, calculated and recorded using the age-appropriate national PEWS system
	The child's physiological observations have been reassessed, calculated and recorded using the age-appropriate PEWS system
	Any deterioration in the child's condition is documented and there is evidence of adherence to the minimum observation frequency as per age-appropriate national PEWS guidelines
	In the event of a deterioration, there is documented evidence of escalation of the child's care and communication to the medical team using the ISBAR as per the age-appropriate national PEWS esclation protocol
	There is documentation of the nursing care that has been provided to manage a deterioration in the child's condition (management plan)
	In the event of infection/sepsis, there is documented evidence of escalation as per national PEWS sepsis/infection protocol

Child and Adolescent Mental Health	A child and adolescent mental health (CAMHS) care plan has been initiated where appropriate
	There is evidence of appropriate CAMHS referral
	The child/adolescent and family have been given contact details for advice/follow up with the relevant CAMHS team
	Evidence for alternatives to clinical holding were explored
	The reason for the application of clinical holding is documented

Conclusion

The need to deliver greater value and increased efficiency while guaranteeing ever-higher quality care is placing a requirement on healthcare organisations to provide evidence of the quality and safety of their care. However, quality and patient safety cannot be measured, and improvements cannot be made without reviewing the appropriate data. The existing suites of metrics established in 2012 were not developed through a robust process and were modified by individual hospitals for use. This created challenges for comparing quality of nursing care across the health system. This report presents the process employed to develop a robust suite of nursing quality care process metrics and indicators that can be used to consistently measure care processes in children's services. By creating a national suite of metrics and indicators, more robust monitoring can be achieved which will enable the provision of evidence for any national level changes to policy and practice that may be required to improve care delivery. The importance of an evidence-based approach in persuading staff to adopt the new suite is also evident from the literature (McSherry 1997; Nolan et al. 1998; Upton & Upton 2005; Majid et al. 2011). It is suggested that staff are more likely to adopt a practice if they know there is scientific evidence to support that practice. The collaborative, participatory approach used ensures the relevancy of the developed metrics and indicators, engenders participant ownership, increasing the capacity for adoption of the chosen suite in children's services and heightens the sustainability of metric and indicator use in practice as the nurses and midwives involved in the research process have become advocates for the developed suite (Jagosh et al. 2012).

The process of developing an agreed set of evidence-based metrics and indicators in this project incorporated; a systematic literature review, a two-round Delphi survey on identified metrics, a two-round Delphi survey on associated indicators for the identified metrics as well as a consensus meeting with key stakeholders. Through using this robust collaborative research design a suite of 8 nursing quality care process metrics and 67 associated indicators were developed for children's services in Ireland.

Recommendations

The implementation of the 8 quality care process metrics and 67 associated indicators is due to begin in children's services in 2018. To examine the effectiveness of the developed suite, we recommend a robust evaluation of the metrics and associated indicators on nursing and midwifery care processes. There is a need to evaluate not only summative endpoint outcomes following implementation but also a requirement to perform formative and process evaluations of implementation (Stetler et al. 2006). Using this approach would aid in examining the impact of the newly developed metrics and indicators on nursing and midwifery care processes.

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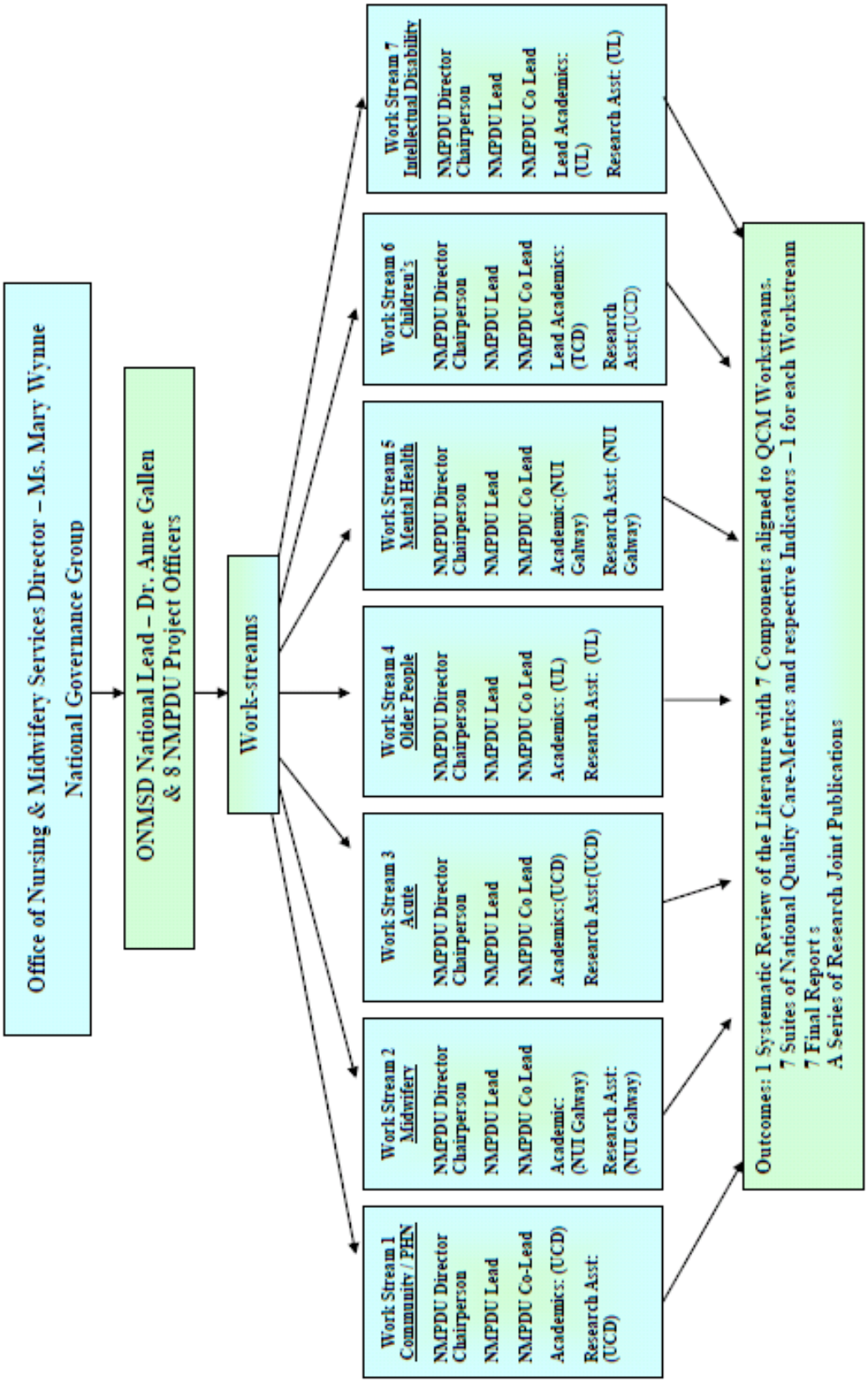
Appendices

NURSING & MIDWIFERY
QUALITY
CARE-METRICS

Appendix 1:
NURSING & MIDWIFERY QUALITY CARE-METRICS – GOVERNANCE STRUCTURE



Appendix 2:
Nursing & Midwifery Quality Care-Metrics – Academic & NMPD Steering Group Membership

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ADMINISTRATION	**Ms. Anita Gallagher,** NMPDU, HSE, North West

Appendix 3:
Nursing & Midwifery Quality Care-Metrics – National Governance Steering Group Membership

Chairperson	**Ms. Mary Wynne,** HSE, Interim Nursing and Midwifery Services Director & Assistant National Director, Office of the Nursing & Midwifery Services Director
Area Director NMPD	**Ms. Catherine Killilea,** Area Director, HSE, NMPDU South
ONMSD National Lead QCM	**Dr. Anne Gallen,** Director, HSE, NMPD North West
QCM Academic Group Representative	**Prof. Laserina O`Connor,** University College Dublin
QCM NMPD Project Officers Representative	**Ms. Gillian Conway,** QCM Project Officer, NMPD, HSE West/Mid-West
Hospital Group Chief Nurse Representatives / IADNAM DON/M Representatives: • Acute Care • Midwifery • Children's Nursing • Older Persons	**Ms. Julie Nohilly,** Director of Nursing, Galway University Hospital **Ms. Mary Brosnan,** Director of Midwifery & Nursing, The National Maternity Hospital, Adjunct Associate Professor, UCD School of Nursing, Midwifery and Health Systems, **Ms. Suzanne Dempsey,** Chief Director of Nursing, Children's Hospital Group **Ms. Georgina Bassett,** National Leadership & Innovation Centre for Nursing and Midwifery NLIC, Office of the Nursing & Midwifery Services Director ONMSD
Area Director of Mental Health Nursing Representative	**Ms. Catherine Adams,** Office of the Area Director of Nursing, Mid-West Mental Health Services
Director of Public Health Nursing	**Ms. Mary B Finn-Gilbride,** Director Public Health Nursing, HSE South, Upper George's Street, Wexford
Director of Nursing Intellectual Disability	**Ms. Theresa O'Loughlin,** Oakridge Children's Services Manager, Daughters of Charity Disability Support Services
HSE Quality Improvement Division Representative	**Dr. Jennifer Martin,** Quality Improvement Division Lead on Measurement for Improvement, Stewart's Hospital, Dublin
HSE ICT Representative	**Mr. Pat Kelly,** Corporate IT Delivery Director, Office of the CIO
INMO Representative	**Ms. Martina Harkin-Kelly,** President, Irish Nurses & Midwives Organisation
PNA Representative	**Ms. Aisling Culhane,** Research and Development Advisor, Psychiatric Nurses Association
SIPTU Representative	**Ms. Aideen Carberry,** Assistant Organiser, SIPTU Health Division
Patient Representative	**Ms. Anne Harris,** Development & Case Support - Southern Area, SAGE (Support & Advocacy Service)
Secretary to the Group	**Ms. Anita Gallagher,** HSE, NMPD North West

Appendix 4:
Nursing & Midwifery Quality Care-Metrics - Children's Services Workstream Working Group Membership

OFFICE OF NURSING & MIDWIFERY SERVICE DIRECTOR	**Ms. Mary Wynne,** HSE, Interim Nursing and Midwifery Services Director & Assistant National Director, Office of the Nursing & Midwifery Services Director
NATIONAL LEAD	**Dr. Anne Gallen,** Director, NMPDU, HSE North West
CHILDREN`S SERVICES WORKSTREAM:	
NMPD DIRECTOR – CHAIRPERSON – CURRENT: NMPD DIRECTOR – CHAIRPERSON – PREVIOUS:	**Ms. Susanna Byrne,** Director, NMPDU, HSE Dublin South, Kildare & Wicklow **Ms. Aine Lynch,** Interim Director, NMPDU, HSE Dublin South, Kildare & Wicklow
NMPD LEAD –CURRENT : NMPD LEAD(S) - PREVIOUS:	**Ms. Ciara White,** QCM Project Officer, HSE Dublin North **Ms. Loretto Grogan,** QCM Project Officer, NMPDU, HSE Dublin South, Kildare & Wicklow
NMPD CO-LEAD – CURRENT :	**Ms. Mary Nolan,** QCM Project Officer, NMPDU, HSE Midlands
LEAD ACADEMIC (S)	**Dr. Maria Brenner,** Trinity College Dublin
RESEARCH ASSISTANT	**Dr. Catherine Browne,** University College Dublin
WORKSTREAM WORKING GROUP	**Ms. Suzanne Dempsey,** Chief Group Director of Nursing **Ms. Jeane Moloney,** Assistant Director of Nursing **Ms. Heather Murphy,** Clinical Nurse Manager 2 **Ms. Clare O'Brien,** Clinical Placement Coordinator Paediatrics **Ms. Amanda Peoples,** Clinical Nurse Manager 2 **Ms. Eleanor Carpenter,** Assistant Director of Nursing **Ms. Caitriona Dennehy,** Practice Development Co-ordinator **Ms. Fionnuala O'Neill,** Practice Development Co-ordinator **Ms. Louise Greensmith,** Post registration Co-ordinator **Ms. Aisling Daly,** Clinical Nurse Manager **Ms. Samantha Kenny,** Parent Representative **Ms. Siobhan O' Connor,** Practice Development Co-ordinator **Ms.Teresa Joyce,** Clinical Nurse Manager 2
ADDITIONAL CONTRIBUTORS	**Ms. Norma O'Keefe,** Advanced Nurse Practitioner **Ms. Hilary Noonan,** Clinical Nurse Manager **Ms. Sarah Mc Partland,** Clinical Nurse Specialist **Ms. Claire Fagan,** Clinical Nurse Manager 3 **Ms. Elaine Fitzgerald,** Clinical Nurse Manager 3 **Ms. Juliette Mc Sweeney,** Clinical Skills Facilitator **Ms. Avilene Casey,** Lead for National Deteriorating Patient Recognition & Response Improvement Programme **Ms. Miriam Bell,** Project Officer for National Deteriorating Patient Recognition & Response Improvement Programme

Appendix 5:
Guidelines on Managing Face to Face Consensus Meetings

	GUIDELINE	RATIONALE
1	**Have a moderator.**	To control and manage the group process to ensure that all participants have their say.
2	**Clearly present the issue to be discussed and allow enough time for discussion.**	Some issues (metrics) may be contentious and so sufficient time must be allowed for discussion. However prolonged discussions may not be helpful and hence the group needs to be managed.
3	**Allow (if possible) anonymous voting.**	To ensure that participants do not feel coerced in their voting. Interactive anonymous systems such as 'clickers' was one suggestion.
4	**Use the same system of rating as was used in the survey phases.**	To avoid confusion.
5	**Identify beforehand the percentage needed for agreement through the voting process.**	Aim for around 75-80% agreement.

Appendix 6:
Nursing and Midwifery Quality Care-Metrics/Indicators Evaluation Tool

DOMAIN	
1 **PROCESS FOCUSED**	The metrics/ indicator contributes clearly to the measurement of nursing or midwifery care processes.
2 **IMPORTANT**	The data generated by the metric/indicator will likely make an important contribution to improving nursing or midwifery care processes.
3 **OPERATIONAL**	Reference standards are developed for each metric or it is feasible to do so. The indicators for the respective metric can be measured.
4 **FEASIBLE**	It is feasible to collect and report data for the metric/indicator in the relevant setting.

Modified from: eRegistries indicator evaluation tool (Flenady et al. 2016)

Appendix 7:
Description of Nursing & Midwifery Grades

Grade	Description
Staff Nurse / Staff Midwife / Registered Nurse Community / Registered Midwife Community	Relates to a nurse or midwife registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. The role includes assessing, planning, implementing and evaluation of care to the highest professional and ethical standards within the model of care relevant to the care setting. Generally reports to a Clinical Nurse/Midwife Manager grade and is professionally accountable to nursing/midwifery management levels.
Public Health Nurse (PHN)	Registered in the PHN division of the professional register of the Nursing & Midwifery Board of Ireland. Works as a member of the primary care team and provides a range of nursing and midwifery services to people of all ages in the community. Reports to the Assistant Director of Public Health Nursing
Clinical Nurse/ Midwife Manager 1 (CNM/CMM 1)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Provides clinical and professional leadership and development to the nursing/midwifery team. Responsible for the management and delivery of care to the optimum standard within the designated area of responsibility. Generally reports to the Clinical Nurse/Midwife Manager 2 or 3 grades, depending on the structure of the organisation, and is professionally accountable to the Assistant Director or Director of Nursing/Midwifery.
Clinical Nurse/ Midwife Manager 2 (CNM/CMM2)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Responsible for the management of a nursing/midwifery team and the service delivery within a specific area. Generally reports to a Clinical Nurse/ Midwife Manager 3 or Assistant Director of Nursing/Midwifery grade, and is professionally accountable to the Assistant Director or Director of Nursing/ Midwifery.
Clinical Nurse/ Midwife Manager 3 (CNM/CMM 3)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Usually responsible for more than one clinical area within the organisation. The role incorporates resource management and the continuing professional leadership of nursing and midwifery teams. Reports to the Assistant Director or Director of Nursing/Midwifery.

Clinical Nurse/ Midwife Specialist (CNSp/CMSp)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Works in a clinical area of speciality practice which requires the application of specially focused knowledge and skills for safe care delivery. The specialist practice encompasses a major clinical focus. A level 8 postgraduate qualification and experience in the clinical specialist field are required for appointment. Reports to the Assistant Director or Director of Nursing/ Midwifery/PHN.
Community Mental Health Nurse (CMHN)	Registered in the psychiatric division of the professional register of the Nursing & Midwifery Board of Ireland. Works in a community area of speciality practice which requires the application of specially focused knowledge and skills for safe care delivery. The specialist practice encompasses a major clinical focus. A level 8 postgraduate qualification and experience in the clinical specialist field are required for appointment. Reports professionally and is operationally accountable to the Area Director of Nursing.
Clinical Skills Facilitator	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Provides clinical support, education and guidance to nurses, midwives and students to support them to achieve/maintain their required clinical skills and competencies.
Practice Development Co-ordinator (PDC)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Works at the grade of an Assistant Director of Nursing/Midwifery/ PHN with a specific focus on the development of nursing/midwifery practice. Reports to the Director of Nursing/Midwifery/Public Health Nursing
Advanced Nurse/Midwife Practitioner (AN/MP)	Registered in the AN/MP professional register of the Nursing & Midwifery Board of Ireland. Uses advanced nursing/midwifery knowledge and critical thinking skills as an autonomous practitioner to deliver optimum care through caseload management of acute and chronic illness. The role is an expert in clinical practice, educated to Master's level 9 or above and reports professionally to the Director of Nursing/Midwifery/PHN.
Assistant Director of Nursing/ Midwifery/ Public Health Nursing (ADON/M/PHN)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Manages the service delivery function and the nursing and midwifery teams within the area of responsibility. The role encompasses strategic planning and development. Reports to the Director of Nursing / Midwifery / Public Health Nursing
Director of Nursing/ Midwifery/ Public Health Nursing (DON/M/PHN)	Registered in the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Responsible for all of the nursing and midwifery teams within the specific organisation. Works as part of the senior management team to achieve the organisational goals. Reports operationally to the General Manager/CEO. In acute hospital care the professional reporting relationship is to the Chief Director of Nursing/Midwifery.

Nurse / Midwife Lecturer /Educator / Tutor / Specialist Co-ordinator	Registered on the Nurse Tutor division of the professional register of the Nursing & Midwifery Board of Ireland. Normally employed within an educational institution with responsibility for the delivery of nursing and midwifery education at undergraduate, postgraduate or continuing professional development level.
Director of Centre of Nursing/ Midwifery Education (CNME)	Registered on the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Responsible for overseeing the delivery of continuing professional development education, training and development to enable registered nurses, midwives and healthcare assistants to maintain and develop knowledge, skills and competence.
Director of Nursing & Midwifery Planning and Development Unit (NMPDU)	Registered on the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. Leads and manages a nursing and midwifery team within a designated regional area to provide strategic, professional, practice, education and clinical leadership to enable the future development of nursing and midwifery services
Nursing & Midwifery Planning & Development Officer (NMPD Officer)	Registered on the general, midwifery, children's, psychiatric or intellectual disability division of the professional register of the Nursing & Midwifery Board of Ireland. The role is to support and enhance healthcare delivery through the development of nursing and midwifery in acute hospital and/or community healthcare organisations.

Notes

NURSING & MIDWIFERY

QUALITY CARE-METRICS

JUNE 2018

Office of the Nursing and Midwifery Services Director
Clinical Strategy and Programmes Directorate

Health Service Executive
Dr. Steevens' Hospital
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