

**Institution:** Queens University Belfast

**Unit of Assessment:** 3b

**a. Overview:** The School submitted its first RAE submission in 2008 and there has been considerable growth in research capacity and environment since that time with a sixfold increase in professorial appointments to our research programmes, almost fourfold increase in the percentage of full-time funded studentships, doubling of REF returnable staff, doubling of research income, strategic development of our research themes and expansion of our international collaborations. Research in the School is organised under **one overarching research cluster, Supporting Vulnerable Groups**, led by a Director of Research. The cluster is focussed on identifying and reducing preventable burden and complexity for vulnerable groups within two key health care areas that are embedded in wider University collaborative research initiatives: **Maternal and Child Health, and Cancer Nursing, Supportive and Palliative Care**. The School is now accommodated in new premises on the Health Sciences campus at Queen's. Our new facilities and infrastructure provide a stimulating, collegial and interdisciplinary environment for Nursing and Midwifery staff and students, evidenced by twenty two staff being returned under UoA3b Nursing and Midwifery.

**b. Research strategy** The School's overall research strategy since 2008 has been to build on existing expertise whilst responding to user need, NHS demand and university strategy. Specifically, we aimed to promote research excellence through high quality, peer reviewed publications, focussed research themes and by building research capacity through recruitment of staff, doctoral students and sustained grant income. This submission provides evidence of how we have achieved these aims.

**Infrastructure and facilities:** A new Head of School was appointed in 2008, with Prof Linda Johnston joining the School from The University of Melbourne to provide strong research leadership and direction. Johnston is supported by a Professorial Director of Research (**Alderdice**), a School Research Committee, an International Scientific Advisory Board (made up of world experts from our international collaborators at the Lawrence S. Bloomberg Faculty of Nursing at the University of Toronto, School of Health Sciences at The University of Melbourne and chaired by Professor Dame Jill Macleod Clark, Faculty of Medicine, Health and Life Science at the University of Southampton) and two dedicated full-time research support staff. This strategic research infrastructure has been further enhanced by the School's new premises. The new six storey extension in the Medical Biology Centre integrates research into the main body of the School, provides excellent research and postgraduate training resources and ensures facilities for expansion of our research and postgraduate community.

**Staffing and capacity building:** A core element of the research strategy since 2008 has been to increase the number of both established and early career researchers. Since RAE 2008 the School has made four new professorial appointments, three internal staff promotions and seven early career researcher (ECR) appointments.

**Research Student Recruitment:** There has been a significant shift in the profile and numbers of research students recruited; 74% have fulltime funded studentships, and there has been a significant increase in the number of international students. The School has established a range of initiatives to facilitate growth, including an undergraduate high achievers database, research mentorship in local NHS Trusts, international supervision teams and travel scholarships to key international partners.

**Involvement of Service Users and Carers:** The School is engaged in a range of strategic activities with users to support dissemination and implementation plans and participation in public discourse. We provide leadership in the development of non-medical clinical academic careers focussing on areas of School research strength. This is reflected in the joint appointments of a Consultant Midwife, a Consultant Nurse in Sexual Health, a Nurse Consultant in Mental Health in the Older Adult and a Nurse Consultant in Haematology Cancer linked to the School's research areas. Gaining NHS partnership on a series of jointly-funded appointments and knowledge exchange activities has provided a valuable framework to enhance academic capacity and to ensure a more integrated approach to education, research and practice

(<http://www.qub.ac.uk/schools/SchoolofNursingandMidwifery/Research/ResearchInPractice/>). This is highlighted further in the UoA3b impact statement.

**Organisation of research:** Our objective is to deliver relevant, high quality research aimed at identifying and reducing preventable burden in vulnerable groups that will: 1) underpin nursing and midwifery practice, 2) inform health care policies and 3) result in real benefit to patients. The research cluster is organised into two research groups to provide a forum for researchers to collaborate internally, to strategically build grant income (research spend for the REF cycle is £2.9M), provide rigorous peer review, support early career researchers and disseminate research findings. In addition to nurses and midwives, our cluster includes researchers from a range of disciplines, including psychology, sociology, physiotherapy, biomedical science and health economics. In RAE 2008 the research groups were Maternal and Child Health and Evaluation of Complex Interventions. We continue to focus on complex pregnancy, neonatal intensive care and children with disability within our Maternal and Child Health research group (led by **Alderdice**) which is embedded in the Improving Children's Lives Initiative (ICL; <http://www.improvingchildrenslives.org/>). ICL is a network of research institutes, centres and clusters across Queen's undertaking highly innovative and internationally-recognised research with children and young people, and is funded by Atlantic Philanthropies (£1.2M) and QUB (£418K annually). The Cancer Nursing, Supportive and Palliative Care research group has evolved out of the RAE 2008 theme on the Evaluation of Complex Interventions (**Porter**) and is part of the Centre for Health Improvement (CHI; <http://chi.qub.ac.uk/>). CHI is a multidisciplinary research initiative within the Faculty of Medicine, Health and Life Sciences at Queen's that aims to improve the health and quality of life of patients living with chronic disease. CHI is closely linked to the recently refunded UKCRC Centre for Excellence for Public Health in Northern Ireland. The following summary of research highlights the direction and achievements of the School Research Groups.

**MATERNAL AND CHILD HEALTH:** **Alderdice** leads this group which consists of 11 academic staff and 7 postdoctoral research fellows. The Maternal and Child Health research group has widely recognised expertise in studying high risk groups in pregnancy, childbirth, infancy and childhood. This remains a priority area for the School and is supported by national and international policy recognising that health and well-being in the perinatal period and early years of childhood is important for adult health and well-being across generations. Overall this programme aims to identify and reduce preventable burden and complexity in women and their families in the perinatal period and in children with long term health conditions and disabilities. The School continues to support two regional databases that contribute to this research group: the Northern Ireland Neonatal Intensive Care Outcomes Research and Evaluation (NICORE) database and the Northern Ireland Cerebral Palsy Register (NICPR). NICORE was established in 1994 and its primary function is to provide high quality data which is accurate, timely, comprehensive, accessible and relevant in order to support service provision, research, clinical governance, surveillance and to facilitate local, national and international benchmarking. The NICPR has been funded continuously for 20 years and provides valuable epidemiological analyses at local, national and international level. It is one of the longest running cerebral palsy registers in Western Europe spanning more than 30 birth years. Both databases have been used as a sampling frame for a number of funded research studies. The research group's programme of research focuses on three key subject areas: **(i) Women with complex pregnancy and fetal well-being, (ii) Neonatal intensive care (iii) Children with chronic health conditions and disabilities.**

**(i) Women with complex pregnancy and fetal well-being (Alderdice, Grunau, Holmes, Lohan, Lynn and McNeill):** Examples of our recently completed research studies demonstrate innovative ways to offer women, their partners and health professionals psychosocial and educational interventions to promote health and well-being:

- Gestational Diabetes DVD: Design, Development, Pilot and Evaluation (**Holmes and Alderdice**; International Diabetes Federation, £208K; Knowledge Transfer Grant for women with Type 1 and Type 2 diabetes **Holmes and Alderdice**, HSC PHA R&D, £100K)
- HIV in pregnancy DEL studentship and Knowledge Translation Grant to develop health professional and lay user websites (**Alderdice and Lohan**; HSC PHA R&D, £89K)

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- Teenage men and unplanned pregnancy: An educational resource (**Lohan** and **O'Halloran** ESRC, £77K; Department of Health and Children Ireland, Crisis Pregnancy Agency Rol £60K; **Lohan**, **O'Halloran** and **Linden**. £259K NIHR).

Furthermore, **McNeill, Lynn** and **Alderdice's** work on public health interventions for women (Midwifery 2020, McNeill £20K) and **Alderdice's** subsequent work on measuring Well-being in Pregnancy (supported by a British Academy small grant and the Perinatal Ireland Ultrasound Consortium funded by the Health Research Board, £118K) provides valuable evidence on interventions to enhance psychosocial aspects of pregnancy and much needed psychometric data for the development of measures of psychological health to be used as outcome measures in psychosocial intervention studies.

**(ii) Neonatal research (Alderdice, Johnston and Grunau):** Interdisciplinary research into neonatal intensive care and its impact has been a longstanding strength at Queen's and has been enhanced by the appointments of Johnston and Grunau. The NICORE database and US and European Neonatal benchmarking of neonatal services which accompanies this work has provided valuable data to support the newly developed Northern Ireland Neonatal Network (**Alderdice** and **Johnston**; Public Health Agency, NI £55K annually; Euroneostat £10K). Follow up studies are an important part of this research including:

- Follow up of late preterm infants at age three (**Alderdice, Holmes** and **Johnston**, DEL studentship)
- Follow up of infants growth restricted in utero, part of the Improving Children's Lives Initiative (**Alderdice** and **Grunau**, Atlantic Philanthropies, Total grant £1.2M).

**(iii) Children with chronic health conditions and disability (Kerr, Linden, McCusker, Parkes and Porter):** The Cerebral Palsy Register (**Parkes**; Public Health Agency, £92K annually) underpins a number of studies that have made a significant contribution to our understanding of the psychosocial adjustment of children with cerebral palsy. Examples include:

- Determinants of participation and quality of life of adolescents with CP (**Parkes**; Wellcome Trust, £68K; DEL studentship **Parkes** and **McCusker**)
- The management of the upper limb in children with Cerebral Palsy (**Johnston** and **Kerr** DEL studentship)
- How can health services contribute more effectively to facilitating successful transition of young people with complex health needs (**Parkes**; NIHR, £96K).

This substantive research area has been developed to include other chronic health conditions and disability, for example, **McCusker** conducted a RCT of psychological interventions to promote improved neurodevelopmental and psychological functioning in children with Congenital Heart Disease, **Porter, Holmes** and **Lynn** are conducting a RCT of Music Therapy for children and adolescents with social, emotional or behavioural difficulties (Big Lottery, £222K), and **Linden** is developing self guided technological aids for the cognitive rehabilitation of children and adolescents with acquired brain injury (HSC PHA R&D, £45 K).

**CANCER NURSING, SUPPORTIVE AND PALLIATIVE CARE:** **Porter** leads this group which consists of 11 academic staff and one postdoctoral researcher. This theme fits with the University's first order investment area of cancer research. The School has been in the forefront of developing palliative care research in Ireland. Along with four other universities and five care organisations, it has been successful in establishing the All Ireland Institute of Hospice and Palliative Care, which aims to strategically support the delivery of outstanding, innovative research by building capacity, quality and sustainability and translating research output into practical impact on policy and services across the island of Ireland. **Porter** is a member of both the management and the research committees of the Institute.

The aims of the research themes are to illuminate the experiences of cancer survivors and patients

requiring palliative care, their informal carers and their professional carers, with a view to improving the experience of both survivorship and palliation. These insights are being used to provide a sound evidence base for care and to develop a research continuum that leads to the development and testing of clinical interventions. The work of this theme is rapidly developing and focuses on three key subject areas: **(i) Supportive care (ii) Symptom management (iii) End of life care.**

**(i) Supportive care (Galway, Porter, Prue, Santin):** A number of Cochrane reviews have been conducted to establish the interventions in this strand. For example, multi-dimensional rehabilitation programmes for adult cancer survivors (**Porter, Prue, Santin**), psychosocial interventions to improve quality of life and emotional wellbeing in newly diagnosed cancer patients (**Galway**) and psychosocial interventions for informal caregivers of people living with cancer (**Santin**). **Reid** and **Porter's** evaluation of a chemotherapy telephone helpline located in the Regional Cancer Centre in Northern Ireland led to the commissioning of two staff nurse posts to ensure the long-term operation of the service (Martha McMEnamin Scholarship, **Reid** and **Porter**, £4K). Further details of current research include:

- Cancer and psychiatric co-morbidity – pathways from help-seeking and service utilisation to patient outcomes (DEL studentship, **Galway, Santin**)
- Late physical and psychological effects of testicular cancer and its treatment (DEL studentship, **Porter** and **Prue**).

**(ii) Symptom management (Reid, Porter):** The successful management of symptoms in cancer nursing, supportive and palliative care is important to reduce burden and increase the quality of life of patients and carers. The School research approach is exemplified by our on-going research into cachexia: identifying need, systematically reviewing the evidence on effective interventions, conducting feasibility work before conducting an RCT:

- A study exploring healthcare professionals' perceived needs of advanced cancer patients with cachexia (DEL studentship; **Reid** and **Porter**)
- Cochrane review: Thalidomide for cancer cachexia. (**Reid**; Cochrane Fellowship, £40K)
- Development of a psycho-social intervention to assist patients and their families affected by refractory cachexia. (**Porter**, Centre for Health Improvement funding £170K)
- Randomized controlled trial of a psycho-social intervention to assist patients and their families affected by refractory cachexia. (**Reid** and **Porter**, Funded through All Ireland Institute for Hospice and Palliative Care Research Network grant, £168K).

**(iii) End of Life Care (Brazil, Hudson, Porter, McLaughlin, Noble, O'Halloran):** Work in this area has been enhanced by the appointments of **Brazil** and **Hudson**. Both have international reputations for their research into end of life care which includes the development and evaluation of psycho-educational interventions in the home and in-patient hospital/hospice. The outcomes of these interventions include improvements in carers' preparedness, competence, positive emotions and a reduction in unmet needs. Examples of current work in this subject area includes:

- Ethical experiences of staff in nursing homes (**Brazil, McLaughlin**, DEL studentship)
- Moral distress at end of life in ICU (**Reid**; HSC PHA R&D Fellowship, £146K)
- A comparative analysis of the end of life care in the North and South of Ireland from the perspective of bereaved relatives (DEL studentship; **Hudson, Porter, Reid**)
- Healthcare planning in advanced Chronic Kidney Disease and exploring renal deaths in Northern Ireland and the views of carers; (Centre for Health Improvement - **Noble** £20K; **Noble** £13K; NIHR postdoctoral fellowship **Noble** £500K)
- The transition of young people with life-limiting conditions to adult services (AIHPC Doctoral Fellowship, **O'Halloran** £102K)

**School of Nursing and Midwifery strategic goals 2014-1019:** Over the next five years we will continue to contribute to the nursing and midwifery evidence base through the School's current

strategy to produce evidence that directly impacts on patient experience by **identifying need** and consequently to **introduce interventions** that **support vulnerable groups** in our key health care areas. Our research approach will also strive to **identify mechanisms** that can support nurses and midwives to use this evidence in everyday practice. We aim to use a range of methodological approaches to identify needs in maternal and child health. Our approach will also continue to use the two regional databases that are funded by the Public Health Agency and supported by the School (NICORE and NICPR) to provide valuable baseline data and as sampling frames for future research. Within both our research groups, our standard approach will be; identifying need from key stakeholders; systematic reviews of relevant interventions; feasibility studies of proposed interventions; conducting cohort studies and RCTs and using implementation science methodology to enhance impact. As many of the health outcomes in nursing and midwifery research are complex, we are also committed to research that can enhance the quality of intervention research, for example, development and rigorous evaluation of psychosocial outcome measures. Development within the research groups will also be informed by our key stakeholders and policy and practice issues that emerge over the next five years. We will continue to grow our current research grant strategy and benefit from the increase in research support staff at University and School level now available to facilitate grant success. In regard to staffing, we will consolidate this period of significant growth by supporting the career development of early career researchers (ECRs), research sabbaticals, mentoring staff and students in their development of impact strategies, support NMC registered staff and postgraduate students in maintaining their NMC registration, making strategic joint appointments with the NHS and further honorary international research appointments. We also aim to continue to build our postgraduate research student community to facilitate research capacity building within the Nursing and Midwifery community locally, nationally and internationally.

c. People, including:

**i Staffing strategy and staff development:** As the main provider of pre-registration Nursing and Midwifery education in Northern Ireland, the development of research in the School is pivotal to the ongoing development of the professions academically. We have consolidated our research expertise over the past ten years and we are now strategically working to an integrated research and teaching model so that active researchers are integrated into undergraduate teaching and teaching staff are supported in their scholarly activity and career development. This model promotes an evidence based teaching culture, research capacity building and translation of evidence into practice. It has been greatly enhanced by the move to School premises in 2011 which has facilitated research and teaching staff integration into thematic teaching and research areas.

Staff and student development is a key part of the School strategy to build up research capacity in the nursing and midwifery professions in the University, the NHS and wider national and international research community. There has been a significant growth in staff and students since RAE 2008 and this now provides long-term stability and facilitates succession planning, with staff increasingly well distributed across the levels of the professoriate, reader, senior lecturer, lecturer and early stage career appointments. We have sought to increase our senior staff complement by external recruitment with appointments from Australia and Canada (**Brazil, Grunau, Johnston, Hudson**) and by a proactive promotions strategy (one to one mentoring, external peer review of CVs and supporting participation in leadership courses and events) with **Alderdice** being promoted to Chair in 2010 and two promotions in 2011 academic year to Senior Lecturer (**Lohan**) and Reader (**Parkes**), respectively. The success of the staff strategy has ensured that REF returnable staff are a focussed, senior research grouping, with six professorial staff returning in REF.

Further growth has been enhanced by the appointment of seven ECRs working within the School's research priority areas. Probationary staff are supported by an individual mentor with quarterly meeting with a probationary support group. A key aspect to our development plan involves individual and group mentoring of postdoctoral contract research staff working to the principles of the Concordat to support the career development of researchers. Two of our staff have received Florence Nightingale scholarships to promote national and international research collaborations (**McNeill** and **Noble**). Our postdoctoral researchers and PhD students have benefited from

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competitive, internal travel scholarships to facilitate collaborations with our key School Collaborators (Toronto, Melbourne, Vanderbilt and Hong Kong) and two of our new ECRs were previously postdoctoral researchers in the School (**Lynn and Santin**). This period of significant growth in the School will be developed over the next five years by establishing further joint and honorary appointments, sabbaticals to facilitate national and international collaborations and through career development activities for staff including short and medium term internships with senior international collaborators, for example, **Kerr** currently has a secondment to the Australian Catholic University and the Royal Children's Hospital Melbourne to support her international research network.

**Diversity and Equality:** The School of Nursing and Midwifery was awarded a Silver Award by Athena SWAN (<http://www.athenaswan.org.uk>) in 2012 in recognition of good practice in recruiting, retaining and promoting women in science in higher education. SWAN Champions **McNeill** and **Noble**, together with the School SWAN Self-Assessment Group are now implementing the 3 year action plan to promote good practice and support career progression and success for women in science within the School of Nursing and Midwifery.

There is a clearly articulated strategy and operational plan which facilitates accountability and transparency in mechanisms for engaging and monitoring all research-active staff in the achievement of collectively established goals. All staff have their progress regularly reviewed against a work load allocation model developed specifically for the School. A university Staff Training and Development Programme offers a range of courses to develop skills. There is a Central Research Support Fund which provides research support packages for new staff and funds for international engagement. School seminars are provided on publication, supervision, grant income, dissemination, impact and collaborative working and these seminars are tailored specifically to identified staff needs within the School. All staff receive training in equality and diversity and all policies are compliant with current legislation.

ii. **Research students:** The postgraduate student community is thriving and ongoing development of our postgraduate students was identified as a very important part of our planning following RAE2008. There has been a significant shift away from self-funded studentships. Seventy four percent (28/38) of students since 2008 are funded (14 DEL studentships, 4 HSC R&D studentships, 5 school funded fellowships/studentships, 2 attached to University initiatives, 2 international studentships, 1 All Ireland Institute of Hospice and Palliative Care). The remaining 10 are self-financed and 6 of these are international students.

**Porter** is postgraduate tutor and all UoA3b staff supervise students as first or second supervisor as of 2013-14 academic year with ECRs being prioritized to supervisory positions. Each student has two supervisors chosen on the basis of methodological and content expertise. The QUB Postgraduate Researcher Development Programme (PRDP) is linked directly with the national (Vitae developed) Research Development Framework (<http://www.vitae.ac.uk>). The aim of the PRDP is to support postgraduate research students in the development of their research and transferrable skills, as well as enhancing their career development and employability. The programme is designed and delivered in line with the National Researcher Development statement and framework. Details of the PRDP can be found at <http://www.qub.ac.uk/prdp>. There is a dedicated postgraduate training team as well as state-of-the-art facilities of the International and Postgraduate Student Centre. The School was the first in the University to adopt the postgraduate peer mentorship scheme whereby 2nd/3rd year students 'buddy' new students. There is also a strong induction, mentoring and training programme in the School for PhD students. An online 'Personal Development Planner' tool has been developed by the University to assist students, in conjunction with their supervisors, to carry out a training and development needs analysis as well as determining future training and development activity. A range of online materials have been created for students to use, including academic writing guides and webinars. Student representation on the Postgraduate Staff-Student Consultative Committee and the School Postgraduate Research Committee ensures their input to School policy and practice. In addition, our Doctor of Nursing and Doctor of Midwifery Practice degrees teach implementation and evaluation skills using an online platform, culminating in research theses that evaluate students'

own healthcare innovations. These degrees are an increasingly important mode of strengthening the research capacity of clinicians on a global basis.

#### **d. Income, infrastructure and facilities**

**Income:** Our strategy has been to increase our research spending (over £2.9M for the REF period) particularly targeting income from Research Councils and major charities. We have established an annual grant strategy to facilitate focussed, high quality grant income examples of which have been outlined in section b under 'Research Groups'. Research theme meetings and research 'away days' are used to facilitate grant applications. Staff attend grant workshops for NIHR, Research Council awards, FP7 awards and other events and services offered by Research and Enterprise Directorate in Queen's. A structured, internal peer review of grants is in place following the introduction of a research support administrator. Our recent staff investments in professorial and earlier career appointments position us well to enhance our grant success moving forward. We aim to achieve excellence and longer term sustainability by building on our current grant income streams (ESRC, NIHR, Major Charities, specialist charities and Government), extending our interdisciplinary collaborations across the university (ICL and CHI) and through our local, national and international research networks while taking a targeted programmatic approach to RCUK, EU and Major Charities funding.

**Infrastructure:** Strategic leadership is offered by the Head of School, Director of Research, School Research Committee and International Scientific Advisory Board. All research in the School follows the University research governance procedures and is submitted to the School ethics committee and university research governance office. NHS projects undergo the scrutiny of the Office for Research Ethics Committee in Northern Ireland (ORECNI) and University and NHS governance procedures. Student progress procedures are monitored by the School Postgraduate Research Committee. All research staff and postgraduate students receive Good Clinical Practice Training and research training through the University Staff Training and Development Programme. The school now has two full-time research support officers, who provide support to researchers in grant submission, management of postgraduate awards, account management and research governance. In addition, the University has significantly enhanced the Research and Enterprise directorate since 2011 to deliver a broader and more responsive research support service through investment in new appointments and the development of an innovative strategic plan for the University.

**Facilities:** Within a rolling five year strategic plan, £205m has been invested in maintaining and enhancing the University estate, with significant enhancements to the facilities for learning, research, service provision and the working and recreational environment for students and staff of the University. In the 2007 – 2017 Estate Strategy, the University committed to consolidating the School of Nursing and Midwifery accommodation which, at that time, was dispersed across the University campus. This consolidation onto the Health Sciences campus was achieved in 2011 with the completion of a six-storey extension to the Medical Biology Building. The extension provides a combination of academic and administrative staff and postgraduate research accommodation on six floors, with a total gross internal area of 3260m<sup>2</sup>. It includes eighty-three single and multiple occupancy offices, ten conference meeting rooms, and associated support space. This investment demonstrates a major commitment to the further development of nursing and midwifery by the University. The School's research environment has been greatly enhanced by our new premises which integrates research with the other activities of the School and provides excellent research and postgraduate training resources.

#### **e. Collaboration or contribution to the discipline or research base**

**Interdisciplinary research:** School research staff are members of two interdisciplinary networks in the University: Improving Children's Lives initiative and the Centre for Health Improvement. Staff are also part of the Translational Research Group in Child Health Welfare (supported by the Public Health Agency R&D Division), and Northern Ireland Palliative Care Research Forum.

**Collaborations:** The School has developed focussed international activity with three Faculties and Schools of Nursing and Health Sciences in Universities in the Top 50 global league tables: The University of Melbourne, Hong Kong University and the University of Toronto. Staff and student exchange is actively sought to enhance research activity. Recent examples include McConnell, a

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PhD student, who was awarded the Marcia Mackie Studentship in 2011, facilitating her to travel to Australia, and **Kerr** who has a two year research secondment to the Australian Catholic University and Royal Children's Hospital, Melbourne in recognition of her expertise in assessment and treatment of children with Cerebral Palsy. The School supports a number of local research collaborations with the University of Ulster, the Health and Social Care Trusts, local charities including Marie Curie, Northern Ireland Hospice and Tiny Life. We work with a range of Trusts and Universities across Ireland and the UK, and with specialist networks including Perinatal Ireland Ultrasound Consortium and All Ireland Institute of Hospice and Palliative Care. In addition, **Alderdice** is Chair of a UK based expert working group on measuring psychological health in the perinatal period (sponsored by the Society of Reproductive and Infant Psychology). Our research programmes also support strategic partnership with a number of European research networks on neonatal intensive care (**Johnston, Alderdice, Grunau**) and Cerebral Palsy (**Parkes**) and the European Association of Palliative Care (**Brazil, Hudson, Porter**). We are also part of the Vermont Oxford Neonatal Network, USA. International collaborators are based in the following institutions: Canada and USA: University of Toronto, Stony Brook University New York, University of Pittsburgh, University of British Columbia, University of Florida, Cochrane Neonatal Group (McMaster University), Vermont Oxford Network (VON) Vermont, Chestnut Hill College, Philadelphia, The University of Ottawa, The Mayo Clinic, Northwestern University, Chicago; Vanderbilt University. Australasia: Flinders University Australia, University of Wellington New Zealand. The University of Melbourne, Monash University, Murdoch Children's Research Institute. Europe: Lund University, Sweden, EuroNeoStat (ENS), Bilbao, Spain, Catholic University of Milan, Uppsala University, Sweden, European Association of Palliative Care, Dresden University of Technology, University of Helsinki, Finland.

**Seminars and conferences:** The School has supported a range of seminars, expert workshops and conferences during the REF period including hosting the 8<sup>th</sup> International Neonatal Nursing Conference 2013, Doctoral Midwifery Research Society 2013, Cochrane in Ireland 2013 and local conferences for parents (e.g. Cerebral Palsy conference) and health professionals (e.g. Midwifery research day in Antrim Area Hospital). Staff are regularly invited to speak at interdisciplinary research seminars and conferences in the UK, Europe, North America and Australasia (e.g. ESRC Critical Realism in Action Conference 2010, Nottingham UK **Porter**; 9<sup>th</sup> Biennial International Nursing Conference, Brunei 2010, **Johnston**; Hot Topics in Neonatology Washington DC 2013, **Grunau**; International Symposium on Pediatric Pain Stockholm 2013, **Grunau**; Invited presentation at the Mayo Clinic Cancer Center 2013, **Porter and Reid**);).

**Editorships, editorial boards and grant peer review:** **Johnston** is editor of Neonatal Paediatric and Child Health Nursing. **Alderdice** (Journal of Reproductive and Infant Psychology), **Porter** (Journal of Research in Nursing) and **Lohan** (Journal of Family Issues and Reproductive Biomedicine) have been guest editors of special issues in their area of expertise. Alderdice and Lohan are associate editors of BMC Pregnancy and Childbirth and BMC Public Health, respectively. Editorial board membership of staff during the REF period include; Childcare In Practice (**Parkes**), Disability and Rehabilitation (**Linden**), End of Life Journal (**Noble**), Evidence Based Nursing (**Noble**), International Journal of Men's Health (**Lohan**), Journal of Neonatal Nursing (**Johnston**), Journal of Renal Care (**Noble**), Journal of Research in Nursing (**Porter**), Nursing: Research and Reviews (**Porter**), Nurse Researcher (**Noble**); Co-Series editor (of the Palgrave Macmillan Sociology and Nursing Practice series: 7 books up to 2009, **Porter**), Neonatal Paediatric & Child Health Nursing (**Parkes**). British Journal of Nursing (**Noble**), Nephrology Dialysis Transplantation (**Noble**), Oncology Nursing Forum Review Board Member (**Reid**), Open Journal of Nephrology (**Noble**), Palliative Medicine (**Hudson**).

**Examples of peer review of national and international grants:** Staff peer review for a range of grant bodies including RCUK (**Alderdice, Lohan**) Major Charities and NIHR (**O'Halloran, Kerr, Holmes, Reid, Clarke, Grunau**) NIH (**Grunau**), government (**Linden, Alderdice, Johnston**), EC FP7 Health Programme (**Lohan**), Australian Research Council (**Johnston**) and Canadian Institutes of Health Research (**Grunau**).