Institution: University of Aberdeen

Unit of Assessment: UoA19: Business and Management

Title of case study: Management of Change in the Healthcare Sector

1. Summary of the impact

The University of Aberdeen's Business School has built a strong programme of research focussing on managing strategic change, particularly in the healthcare sector. Using a conceptual framework which explores the complex interplay between organisational context, content and process, the University has completed a number of studies looking into patient safety, quality and service redesign, four of which are described here. Because the work routinely involves health care stakeholders across the research pipeline, from articulation of the research problem, through to recommendations and the delivery of solutions, impact is wide-ranging, including changes in staff behaviours, improvements to safety, and significant financial savings.

2. Underpinning research

Lorna McKee has been Professor of Management at Aberdeen Business School since 1995 and holds a joint post between the Business School and the Scottish Government funded *Health Services Research Unit* (HSRU), facilitating opportunities for research linkages with health care practitioners, managers and policy makers. Her research specialism is understanding the process of organisational change in healthcare organisations. She formulated an 8-factor model of receptive and non-receptive contexts for change (ref 3.1) and has since used this across studies of patient safety, quality and service redesign (ref 3.2).

The following projects illustrate her cumulative research:

a) From 2005-2009, McKee led a major National Institute for Health Research (NIHR) Service Delivery & Organisation (SDO) project, *Understanding the Dynamics of Organisational Culture: Creating Safe Places for Patients and Staff (Safe Places*) (ref 3.4). This multidisciplinary, multi-method research included organisational case studies of 8 NHS Trusts and 144 interviews with frontline, clinical staff, managers with clinical governance roles, middle and senior managers and Trust Chairs. 248 nurses on ward duty completed handheld diaries about their sense of well being, stress and pressure (ref 3.5). In 7 Trusts, Chief Executive Officers (CEOs) consented to additional, psychologically-based interviews; and their executive teams completed upward appraisals of performance. The findings illustrated that providing safe care is 'the invisible norm': but Trusts varied in their priority and commitment to safety. CEO continuity and top team leadership were important signals for safety and staff well-being.

b) McKee led a project funded by the Irish Health Research Board (IHRB) (with Professor Patrick Flood, Dublin City University) from 2011 – 2013 on *From Policy to Practice: an International Comparison to Systemic Quality and Safety*. The research involved reviews of national policy documents, 44 interviews with regulatory staff, government policy leaders, heads of professional bodies and senior staff responsible for quality and safety, plus 70 interviews with staff at different levels of care delivery, across four acute hospitals in Scotland and Ireland. Findings shows that context matters and that achieving change involves a complex mix of leadership and cultural change, aligned with good data and clear measures of regulation and performance.

c) At a national level McKee was commissioned in 2007, along with consultants Human Reliability Associates, to review the effectiveness of Scotland's healthcare quality agency, Quality Improvement Scotland (QIS: now Healthcare Improvement Scotland), resulting in the report, *Quality Improvement in Scotland - an Independent Evaluation of the Impact of QIS*. This research provides strong evidence of the positive impact of NHS QIS in terms of increases in professional knowledge, changes in policy and practice, and reported changes in patient outcomes.

d) In her local research, she secured funds (with Professor Michael Hughes, also Aberdeen) for a Knowledge Transfer Partnership with NHS Grampian, exploring contextual change and investigating limited capacity in supply of endoscopy services. The project directly questioned what level of service was needed; whether trained technicians, GPs or consultants should conduct endoscopies; and where services could be best delivered. The Health Board framed the challenge and McKee's team provided data and research expertise, embedding the researcher in the NHS and developing outcomes in situ.

3. References to the research

1. 'Receptive and non-receptive contexts for change' (Pettigrew A., Ferlie E. **McKee, L**.), in A. Clarke et al. [eds] 2004. Studying the Organisation and Delivery of Health Services. A Reader. London: Routledge Falmer.
2. Shaping Health Policy: Case Study Analysis. Locock, L. and Dopson, S., in Exworthy, M. et al., [eds], Policy Press, 2011: chapter 13, pp 205-210 cites the centrality and influential legacy of **McKee's** 'receptive' contexts framework.
3. 'Patient safety: whose vision?' (Charles, K., **McKee, L**. and McCann, S. K.) in Dickinson, H. and Mannion, R. [eds] 2011. The Reform of Health Care, Shaping, Adapting and Resisting Policy Developments. Basingstoke: Palgrave Macmillan.
4. ''A quest for a patient-safe culture: contextual influences on patient safety policy' (Charles K., **McKee, L.**, McCann S.) Journal of Health Services Research and Policy, 2011, vol 16 (suppl 1) pp. 57-64.
5. 'Stress in nurses: stress related affect and its determinants examined over the nursing day'. (Johnston, D.W., Jones, M.C Charles, K., McCann, S.K., **McKee, L.**) Annals of Behavorial Medicine, 2012 vol 45, no.3, pp 348-356. doi 10.1007/s 1216012-9458-2.
6. '"New" and distributed leadership in quality and safety in healthcare or "old" and hierarchical? An interview study with strategic stakeholders.' (**McKee, L** ., Charles, K., Dixon-Woods, M., Willars, J., Martin, G.) 2013, Journal of Health Services Research and Policy. doi: 10.1177/1355819613484460.

Relevant grant funding:

2a): £304k from NIHR SDO over 2005 – 2009, with Professors R. Flin, A. Grant, D. Johnston, Drs K Charles and S. McCann (all Aberdeen); Professors M. West (then University of Aston), Dr M. Jones (University of Dundee) and Ms C. Miles (then Department of Health Wales). NB: building on the SDO project, McKee is sole Scottish co-applicant on *Quality and Safety in the NHS: Evaluating Progress Problems and Promise,* a major evaluation study funded 2010 – 2013 for £1,296k by NIHR's Policy Research Programme, Department of Health (led by Professor Michael West, University of Lancaster) (Ref 3.6).
2b): £143k from *Irish Health Research Board*, over 2011-2013; see ref 3.5]. This project has been awarded 'Knowledge Exchange' monies by the IHRB (€10k), to further develop interventions in one hospital site.
2c): McKee was the academic contributor and part of the consultancy team (fee commercially confidential) with Human Reliability Associates.
2d): £119k over 2008-2010, KTP 006670, funded by Technology Strategy Board and NHS Grampian (with Professor M. Hughes (Aberdeen), A. McKinlay, D. Sullivan and J. Evans (all NHS Grampian).

4. Details of the impact

McKee's research has directly impacted on the awareness and practice of senior non-academic stakeholders across the UK and Ireland. A Knowledge Transfer Partnership with NHS Grampian led to substantial savings for the Health Board there [2d; 5.7].

Research-in-action workshops:

These served a dual purpose: feeding back findings to research participants; and informing NHS actions and raising awareness of the research issue. This knowledge exchange increased the 'pull' of the research and multiplied its reach. For example, research from the **Safe Places** [2a] project was presented at the *Research in Action Workshop for Research Participants: Understanding the Dynamics of Organisational Culture Change* in Birmingham in 2009. Participants included senior managers from 7 of the 8 Acute Trusts, including CEOs and three nominated senior quality and safety managers from each. Participants responded well, with all reporting the workshop useful in building bridges between researchers and NHS staff: 84% said it had been '*excellent or very good'* for that purpose. [5.1]

Another complementary example was a session presented at *Delivering Better Health Services*, the Health Services Research Network (HSRN) and NIHR SDO joint annual conference in Manchester in 2010, with over 100 health managers, practitioners and researchers. Reflecting on both events in her role as a non-academic in the project, Christine Miles (then Director at the Department of Health, Wales and previously a Hospital CEO, now Director of Operations, Airedale FT NHS Trust) said: '*This and the SDO conference were great opportunities to enable interfacing between (the) academic world and NHS'* She adds *'When reading the report, I realised how much research can provide us with potential solutions to better care; and in the light of the Francis report it is so topical; and only the other day I was revisiting the findings of our research.'* [5.1; 5.6].

A similar research-in-action workshop increased the impact of the **Irish/Scottish Project** [2b]. *From Policy to Practice: an international comparison of approaches to systemic quality and safety,* took place at Dublin City University Business School in 2012, with 25 attendees, including clinicians and managers from participating hospitals, senior Board representatives, government officials from both countries, senior managers from QIS and a representative of the Scotland Intercollegiate Guideline Network (SIGN). Commenting on the impact, Professor Noel Whelan, Chairman of the Board of Directors, St. Vincent's Healthcare Group, Dublin said: *'The research insights generated have led to new ways of interpreting and dealing with quality improvement initiatives. St. Vincent's University hospital is a direct beneficiary of this work and acknowledges its relevance and importance'* [5.8] Dr. David Steel, former CEO of QIS, stated: *'...the project has produced findings that not only add significantly to the evidence base on quality and safety improvement but have also been welcomed by practitioners as useful and relevant (and timely following the Francis report on failings at Mid-Staffordshire)'* [5.2; 5.7].

Knowledge transfer partnerships (KTPs):

A local feedback event for the KTP with NHS Grampian (2d, 2010) targeted 20 stakeholders, including consultants, GPs, nursing and managerial staff. A high-level meeting was also held to discuss the project with Dr. Kevin Woods, the then Director General of NHS Scotland, and the local health board CEO. This knowledge partnership was a finalist in the 2012 Knowledge Partnership Scotland awards, with both commercial and organisational impact, making total savings of £237,000 for the Health Board. Other impacts related to development of clinical leadership skills: bringing '*a positive outlook for accepting and managing future change'*. Jillian Evans, Head of Health Intelligence at NHS Grampian commented, *'Since the KTP, the industrial supervisor, a Consultant in Endoscopy, has enhanced his leadership role in the wider organisation and is now leading NHS Grampian's Transforming Outpatients Programme'.* [5.3; 5.9]

Direct policy advice and expert commentary to government:

In 2007, McKee was involved in an independent evaluation of the role and impact of the NHS Quality Improvement Scotland (QIS), a new public body. Implemented from 2008 onwards, the resulting report – as confirmed by Dr. David Steel, former QIS Chief Executive - *'led to a significant refocusing of the organisation's efforts toward active support of improvement activities in the*

service, of which the pioneering Scottish Patient Safety Programme (SPSP) was a… very high profile example'. He adds: *'Professor's McKee's expertise in the evaluation of complex organisations…was invaluable in ensuring the…credibility of the analysis that was undertaken, which was a major factor in the Board's assessment of the validity of the recommendations that emerged from it'.* [5.4; 5.7] In 2010-2013 McKee was co-PI on a NIHR Department of Health Policy Research Programme (2a: reference No 0770017) directly addressing patient safety cultures and the importance of clear, challenging goals for high-quality care, with organisations putting the patient at the centre of all they do, getting smart intelligence, focusing on improving organisational systems, and nurturing caring cultures by ensuring that staff feel valued, respected, engaged and supported [2a; 5.5].

5. Sources to corroborate the impact

5.1 Understanding the Dynamics of Organizational Culture Change: Creating Safe Places for Patients and Staff'. SDO Project (08/1501/92) (McKee L., West M., Flin R., Grant Johnston A., Jones M., Miles C., Charles K., Dawson J., McCann S., Yule S.). Queen's printer and Controller of HMSO 2010.
http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1501-092_V01.pdf

5.2'Perceptions of hospital quality and safety climate and communicating adverse events and near misses', *Quality and Patient Safety in Healthcare, University of College Dublin, Ireland, 7 September 2012.* Presentation available from HEI on request.

5.3 Stakeholder Meeting: Endoscopy Service Redesign: Change and Sustainability' (Ryan S., Hughes M., McKinlay A., Sullivan D., Evans J., McKee L.). *Knowledge Transfer Partnership*, September 2010. Copy of report available from the HEI on request.

5.4 Quality Improvement in NHS Scotland – an Independent Evaluation of the Impact of NHS Quality Improvement, NHS Quality Improvement 2007, (Cross S., Blackett C., McKee L.) 2007. Available from HEI on request
Volume 1:
http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&cad=rja&ved=0CFMQFjAB&url=http%3A%2F%2Fhealthcareimprovementscotland.org%2Fhis%2Fidoc.ashx%3Fdocid%3Dbe575db8-af83-4379-b1e2-7acdf899d5ac%26version%3D-1&ei=zQNdUpTOPKON0wXKl4Ao&usg=AFQjCNEO3q8qgOvbnqztHicoSyttATbngQ&bvm=bv.53899372,d.d2k

Volume 2:
http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&cad=rja&ved=0CE4QFjAA&url=http%3A%2F%2Fhealthcareimprovementscotland.org%2Fhis%2Fidoc.ashx%3Fdocid%3Df2187a70-e942-4a69-bb36-4d66a54ac028%26version%3D-1&ei=zQNdUpTOPKON0wXKl4Ao&usg=AFQjCNEsSLRtkYB9AM9LlfwbPTM5sQwC1w&bvm=bv.53899372,d.d2k

5.5 Culture and Behaviour in the English National Health Service: overview of lessons from a large multimethod study, *BMJ Quality Safety*, 2013 (McKee L, Dixon-Woods M, Baker R, Charles K, Dawson J, Djerzembek G, Martin G, McCarthy I, Minion J, Ozieranki P, Willars J, Wilkie P and West M). DOI 10.1136/bmjqs-2013-001947
http://qualitysafety.bmj.com/content/early/2013/08/28/bmjqs-2013-001947.full.pdf+html

Four testimonials in support of projects 2a, b, c and d have been provided to the HEI and are referred to here in terms of their corroboration of impact:

5.6 Director of Operations, Airedale FH Trust, NHS Trust. [2a and 5.1]
5.7 ex-Chief Executive of Quality Improvement Scotland. [2d, 5.2 and 5.4]
5.8 Chairman, Board of Directors, St Vincent's Healthcare Group, Dublin. [2b and 5.2]
5.9 Head of Health Intelligence, NHS Grampian Health Board [2c and 5.3]