Approaches to quality improvement in five European countries: the QUASER study

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University College London
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EU 7th Framework Programme
Grant agreement 241724

- England
  - UCL, King’s College London, Imperial
- The Netherlands
  - Erasmus University
- Norway
  - University of Stavanger
- Portugal
  - ISCTE
- Sweden
  - Jönköping University
Johan Calltorp

- Professor of Health Policy and Management, Jönköping Academy for Improvement of Health and Welfare, Jönköping University
- QUASER partner, supporter, friend.

Background to the Research: EU Policy

Right of patients to seek healthcare in another Member State

“Patients should be confident that the quality and safety standards .. they receive in another Member State are regularly monitored and based on good medical practices”

EU Directive on safe, high quality and efficient cross-border healthcare (2008)
Background to the Research:

• Quality - not just technical, has human and social components

• Increasing interest in this field see e.g. Curry et al, What distinguishes top-performing hospitals in acute MI mortality rates. Ann Int Medicine, 2011

“The focus of the system resulted in a number of organisations failing to place quality of care and patients at the heart of their work.”

Report of the Mid Staffordshire NHS Foundation Trust Inquiry, chaired by Robert Francis QC, p.65
Previous studies of healthcare quality: gaps and limitations

- Some understanding of types of quality improvement strategies
  - Lean, Six Sigma, Clinical governance, Risk management
  - Specific tools and strategies e.g. PDSA cycles, Surgery checklist, Standardised care pathways
- Cross-sectional surveys of factors associated with QI
- Less understanding of
  - The factors that increase effectiveness of implementation
  - The longitudinal factors – the quality journey and building capacity

Research aims
To explore relationships between organisational and cultural characteristics of hospitals and how these impact on quality improvement (clinical effectiveness, patient safety and patient experience) in European countries

Translational research objectives
- To design and disseminate a Quality and Safety Guide for Hospitals – to assist hospital managers implementing QI programmes
- To design and disseminate the Framework for Assessing Hospital Quality – to assist payers to assess QI strategies in hospitals
Key features of QUASER

- QI: a human & social endeavour, not just technical
- Working definition of quality: clinical effectiveness, patient safety, patient experience
- Multi level, comparative study – focus on the interactions between the macro, meso and micro levels and their effect on quality
- Translational research – translate research into outputs with relevance, utility and value

A macro, meso and micro-level perspective

European Union policies and regulations

MACRO LEVEL
How a national healthcare system ‘organises’ for clinical effectiveness, safety and patient experience

MESO LEVEL
How a hospital ‘organises’ for clinical effectiveness, safety and patient experience

MICRO LEVEL
How micro-systems ‘organise’ for clinical effectiveness, safety and patient experiences
Building on ‘Organising for Quality’ (Bate et al)

• Despite huge variety, similar sets of challenges
  • Structural
  • Political
  • Cultural
  • Educational
  • Emotional
  • Physical and technical

NOW ADAPTED AND IMPROVED!
- added:
  • Leadership
  • Managing external context
Physical & technological: designing physical infrastructure and technological systems supportive of quality efforts

Emotional: inspiring, energising and mobilising people for quality improvement work

Leadership: providing clear, strategic direction

Structural: structuring, planning and coordinating quality efforts

Political: addressing the politics and negotiating the buy-in, conflict and relationships of change

Cultural: giving ‘quality’ a shared, collective meaning, value and significance

Educational: creating and nurturing a learning process that supports continuous improvement

Managing the external environment: responding to broader social, political & contextual factors

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Managing the external environment: responding to broader social, political & contextual factors
Research Questions

- **STRUCTURE**: how is QI structured, planned and co-ordinated?
- **LEADERSHIP**: how is QI led in the hospital?
- **POLITICS**: how are the politics of change around QI negotiated?
- **CULTURE**: how are shared understandings & commitment to quality built?
- **EDUCATION**: how do staff learn about quality and QI?
- **EMOTIONAL**: how is individual and collective enthusiasm for QI engendered and supported?
- **PHYSICAL & TECHNOLOGICAL**: how is the physical, informational and technological infrastructure used to support QI?
- **LEADERSHIP**: how is QI led in the hospital?
- **MANAGING THE EXTERNAL ENVIRONMENT**: how is the external environment in relation to QI managed?

AND.....

- What are the respective roles of the macro-, meso- and micro-system levels in terms of:
  (a) successful implementation & spread of QI
  (b) sustained quality
  and
- How do the levels inter-relate?
**Methods: background research**

- Determine the best methods and mechanisms for developing, designing and disseminating the practical guide and framework
  - literature review and interviews with key actors

**Methods: Macro framework**

- Health care context
- Funding and access
- Regulatory framework
- Accreditation and monitoring
- Information availability
- Resources available
- Patient rights
Methods: Hospital (meso) level

Hospital selection

• 2 hospitals in each country that appear from available indicators to be at different stages of the quality journey:
  • 1 ‘high performing’; 1 ‘developing’
  • Selection also informed by using national accreditation or regulation measures, where available

• Burnett et al (2012)
Hospital fieldwork

- 10-15 interviews with Senior Leaders x2
- 2 clinical micro systems studied in each country
- 2 ‘tracer’ QI projects: HCAI and one other
- 387 semi-structured interviews
- 780 hours observation
- Over a one year period
- Common interview questions across countries
- Common framework for analysing the findings

Findings

Despite different national & local contexts....
Despite different national contexts.....

<table>
<thead>
<tr>
<th>Year: 2011</th>
<th>England</th>
<th>Netherlands</th>
<th>Norway</th>
<th>Portugal</th>
<th>Sweden</th>
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</thead>
<tbody>
<tr>
<td><strong>Funding in relation to Quality</strong></td>
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<tr>
<td><strong>Tax-based, 17.6% private.</strong></td>
<td><strong>Mix of taxation and insurance.</strong></td>
<td><strong>Tax based, 15.75% private.</strong></td>
<td><strong>Tax based, 34.9% private.</strong></td>
<td><strong>Tax based, 18.5% private.</strong></td>
<td></td>
</tr>
<tr>
<td>Hospitals remunerated through contracts with commissioners for volume and quality</td>
<td>Insurance companies have different ways of putting quality requirements in contracts</td>
<td>Some out-of-pocket payments</td>
<td>Hospitals remunerated in block funds from government with activity targets.</td>
<td>County Councils have a population responsibility.</td>
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<tr>
<td></td>
<td>Hospitals manage multiple quality requirements</td>
<td>Cost-sharing ceiling set by parliament approximately 200 Euro in 2010.</td>
<td>4% budget incentivised for delivering national quality &amp; efficiency targets.</td>
<td>Financing through budgets, volume and some quality measures/incentives.</td>
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<tr>
<td></td>
<td></td>
<td>Main hospital funding from government through regions not linked to quality but waiting times guarantee with financial penalties</td>
<td></td>
<td>Recent schemes of payment from government sources in relation to access.</td>
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<tr>
<td><strong>Regulatory framework for quality</strong></td>
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<tr>
<td>Hospital licensing in place through the national regulator.</td>
<td>Hospital accreditation is in place.</td>
<td>No accreditation system.</td>
<td>Hospital accreditation is in place.</td>
<td>No accreditation system.</td>
<td></td>
</tr>
</tbody>
</table>

**Austerity**

<table>
<thead>
<tr>
<th>Year: 2011</th>
<th>England</th>
<th>Netherlands</th>
<th>Norway</th>
<th>Portugal</th>
<th>Sweden</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Budget cuts:</strong></td>
<td><strong>Limited to 2.5% growth</strong></td>
<td><strong>Budget cuts:</strong></td>
<td><strong>Budget cuts:</strong></td>
<td>** Costs limited to 9.5% GDP leading to growth of approx 1-3 %**</td>
<td></td>
</tr>
<tr>
<td>0.2% (2010/11)</td>
<td>0.8% (2010)</td>
<td>13% (2011)</td>
<td>7% (2012)</td>
<td></td>
<td></td>
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<tr>
<td>2.2% (2011/12)</td>
<td>0.2% (2011)</td>
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</tbody>
</table>
Different national contexts: quality and safety indicators (Burnett et al, 2012)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>England</th>
<th>Portugal</th>
<th>Netherlands</th>
<th>Sweden</th>
<th>Norway</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-diff or MRSA rates</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Surgical site infection rates</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Composite mortality rate</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Specific mortality rates (AMI, Stroke, CABG, AAA)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Emergency readmission rates</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3rd and 4th degree perineal trauma rate</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Caesarean section rate</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Primary angioplasty rates</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Hip fractures treated in 48 hours</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>24 hr scan rate for stroke</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Despite different local contexts....

<table>
<thead>
<tr>
<th></th>
<th>Sweden</th>
<th>Portugal</th>
<th>Norway</th>
<th>England</th>
<th>The Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Beds</td>
<td>506</td>
<td>642</td>
<td>1,300</td>
<td>585</td>
<td>300</td>
</tr>
<tr>
<td></td>
<td>2,200</td>
<td>1,025</td>
<td></td>
<td>709</td>
<td>536</td>
</tr>
<tr>
<td>Staff</td>
<td>3,300</td>
<td>4,082</td>
<td>1772</td>
<td>1343</td>
<td>2336</td>
</tr>
<tr>
<td></td>
<td>12000</td>
<td>7500</td>
<td>3677</td>
<td>2649</td>
<td></td>
</tr>
</tbody>
</table>
Common features: the bad news....

- Focus on Quality Assurance rather than Quality Improvement
- Key drivers are governance, compliance, accountability rather than learning and cultural change
- Focus is more on systems, tools and data than on changing attitudes, behaviours and cultures
- QI work resides largely at the margins of hospital priorities and routines in the face of financial pressures – finance takes precedence
- Dominated by a ‘project by project’ approach, not system-wide
- Focus on clinical effectiveness and patient safety - limited patient and public involvement in QI (or even use of patient feedback on their experiences)

Attention paid to challenges - overall

UCL, King’s College London, Imperial College London, Jönköping University Sweden, Erasmus University Netherlands, ISCTE Portugal, Stavanger University Norway
Deviant case analysis

- Negative cases i.e. examples of where hospitals have gone against the grain of the common features
- Has been used esp. in political science and criminology
- Can be used to build ‘middle range theory’ (Merton)
Findings – deviant cases

2 examples of interactions between levels
(i) Meso-micro
• Managing the ‘disconnected hierarchy’ (Mintzberg)
• Use of ‘issue sellers’ to bridge gap between senior leadership level and clinical micro systems (cultural)

Hospital B in England – poor performance on mortality and other clinical indictors
• CEO appointed new role: Dir Clinical Performance
• Senior doctor who enjoys challenge and prepared to argue with colleagues:
  • ‘I can make it so hot for them that they get on and do it’.
• Credited with improved learning about findings relating to deaths in hospitals; improved management of palliative care patients; development of quality dashboards related to clinical care
Findings – deviant cases

(ii) Meso-macro

• How senior hospital leadership manage their external environment (intermediary organisations, media etc.) – active or passive?

Findings – deviant cases

• **Involving patients** e.g. care guarantees in the Netherlands
  
• signed annually for specific patient groups e.g. for lung diseases
  
• explains how outpatient visits are organised, the waiting times for treatment and results, and privacy policies
Findings – deviant cases

• **Energising staff**
  – e.g. celebrating success
  – setting up links with external sources of knowledge and learning for QI

• **Making QI visible**
  – e.g. quality experience dashboards, balanced scorecards

• **Balancing costs and quality/safety**
  – Adoption of long term strategies to embed quality in culture and link cost reductions to improving quality

What enabled these deviant cases?

• Long-term commitment to QI
• Stability of context and leadership
• Pockets of ‘deviancy’ even in ‘basket cases’
  • Bottom up QI initiatives – led by clinical enthusiasts
  • But not harnessed effectively by meso level leaders
From ‘guides’ to ‘guiding’

Use of guides varies by health care system context

• Guides more prominent in top-down systems – many designed at national level e.g. England

• In bottom-up systems, guides available but focus more on QI goals not specific tools / methods – many designed at local level e.g. Sweden, Portugal, Norway

Implications:

• ‘Guide’ must not be a passive piece of paper or website

• Must be an interactive, social process ‘guiding’ hospital leaders and payers

Creating a tool to change conversations: from ‘guides to guiding’

• To help senior leadership teams in hospitals reflect upon and develop organization-wide quality improvement and safety programmes

• To help payers of hospital services assess a hospital’s approach to quality improvement and reflect on how their own behaviour/actions can facilitate QI
QUASER | The Hospital Guide
A research-based tool to reflect on and develop your quality improvement strategies

Guide Structure

**Stage 1**
Diagnostic questions on the 8 QI challenges. “Which Challenge(s) should we focus on?”

**Example: Educational Challenge**

<table>
<thead>
<tr>
<th>Strategies &amp; Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide QI knowledge through mandatory training…</td>
</tr>
<tr>
<td>Develop links with Universities</td>
</tr>
<tr>
<td>Learn from patients and staff</td>
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<tr>
<td>Learn from evidence</td>
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<tr>
<td>Support communities of practice</td>
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<tr>
<td>Integrate continuous learning</td>
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<tr>
<td>Engage and use external expertise</td>
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</tbody>
</table>

**Stage 2a**
How well are we doing on the strategies? Prioritised list for targeted action. Key lessons and examples of solutions (linked to other challenges)

**Stage 2b**
Consider how this challenge links with other challenges e.g. cultural

**Stage 3**
Co-ordinated plan for QI implementation
## Diagnostic Step – Challenges

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Why did you choose this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
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<td>Practice</td>
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<td>Culture</td>
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<td>Educational</td>
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<td>Emotional</td>
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<td>Physical &amp; Technological</td>
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<td>Structural</td>
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<tr>
<td>External issues</td>
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</table>

## Diagnostic Step – Leadership

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Why did you choose this?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Translating national targets into local quality improvement initiatives</td>
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<tr>
<td>2. Allocating time to make sure that in your hospital we do the same thing as external regulations or relevant policies with (b) priorities for quality improvement that are locally driven and non-competing to have the greatest overall impact</td>
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<td>3. Securing commitment to quality improvement in your hospital’s mission statement</td>
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<td>4. Developing your staff for quality improvement</td>
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<tr>
<td>5. Implementing long-term quality improvement strategies</td>
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<tr>
<td>6. Encouraging both “top-down” (strategic, long-term) and “bottom-up” (informal, emergent) approaches to quality improvement</td>
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Next steps...implementing the guide: iQUASER

- Project funded to implement hospital guide as part of a large-scale research collaboration between Universities and NHS (CLAHRC)
- iQUASER: 3 years, starting April 2014
- 7 Trusts currently signed up
- OD consultancy will deliver intervention
- Evaluation of implementation of the intervention
Thank you!
Questions? Comments?