Overview of key findings from the MUNROS project

Workshop: Towards a more efficient use of health human resources
OECD, Paris, 27 June 2016

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- Germany, Berlin University of Technology
- The Netherlands, Erasmus University Rotterdam
- Italy, The Catholic University of Rome
- Poland, University of Warsaw
- Turkey, Economic Policy Research Foundation
- England, University of Manchester
- Czech Republic, Charles University Prague
- Norway, University of Bergen
Project Aims

• Detail nature, scope and contribution of new professional roles

• Evaluate impact on clinical practice and outcomes

• Identify scope to improve the integration of care

• Estimate cost effectiveness of new professional roles

• Explore consequences for workforce management and planning
## Structure of Research

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Work Packages</th>
</tr>
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</table>
| 1. Mapping health system integration, skill mix and competencies | WP 1 Understanding health systems  
WP 2 Mapping skill mix |
| 2. Methodology and study design                   | WP 3 Case studies  
WP 4 Questionnaire design |
| 3. Data collection, management and analysis       | WP 5 Impact on clinical practice and organisation of care  
WP 6 Outcomes: the patient experience  
WP 7 Outcomes: process, productivity and clinical effect  
WP 8 Changes in costs and benefits |
| 4. Translation into policy: delivering impact     | WP 9 New professional roles and the integration of care  
WP 10 Management of human resources and successful workforce planning  
WP 11 Scientific structure, policy engagement, impact and dissemination |
| 5. Scientific coordination                        | WP 12 Scientific co-ordination |

MUNROS is funded by the European Commission FP7 programme [www.abdn.ac.uk/munros](http://www.abdn.ac.uk/munros)
WP 1 findings: Understanding health systems

• Nine partner countries representative of different systems

• Care pathways a common way to standardise care (except Poland, Turkey, Czech Republic)

• Quality of care reported in all countries; no standard definition

• Performance management used in all countries; various indicators used (waiting times common to 8/9)

• Integrated care the ideal but barriers reported; no single model
WP2 findings: Main drivers of skill mix

• Workforce policies: regulation of junior doctors’ hours (England, Scotland, Netherlands)

• Payment systems: payment for clinical treatment conditional on physician delivering treatment (Germany)

• Technological advance: new roles for nurses as technology changes chronic disease management (Italy)

• Professional authority: dilution of medical professionals’ authority facilitates task reallocation

• New approaches to care: shift from secondary to primary care

• Professionalisation of non-medical health care professionals: degree-level entry requirement changes expectations of professions
WP2 findings: Mapping skill mix

• Three main groups of countries:
  o New professional roles have legal power and authority (England, Netherlands, Scotland and now Germany): Nurse Practitioners and Advanced Practice Nurses – New Professions
  o New professional roles are focussed on specialised care within the medical domain (Czech Republic, Germany, Italy, Turkey): Extended roles for established professions
  o Marginal development of new roles (Norway, Poland)

• Literature review revealed new professions produced improvements in
  o Access
  o Patient knowledge and satisfaction,
  o Clinical outcomes.
Employed in many clinical areas: cancer, diabetes, other chronic diseases
WP3 findings: Case studies

• Impact of new professional roles is small but significant
  o Few new care professionals in new roles
  o Established professions set the rules
  o Tasks undertaken vary within countries and between local teams
  o Health care organisations are creating more new roles

• Contribution of new professional roles:
  o Increased throughput without increasing costs
  o Increased transparency of recording of procedures
  o Offered more patient centered care

• Tasks undertaken depend on attitude and flexibility of established professionals
  o Often a single individual – the team leader
  o Necessary to establish new professionals are knowledgeable and competent
  o Extension of roles results from assuming additional tasks to “get the job done”
Data Collection

• 3 care pathways: breast cancer, heart disease and diabetes
• 12 hospitals for each pathway in each of the 9 countries

• Questionnaires to **health professionals** engaged along each pathway, and to **managers** of those health professionals, on **tasks** each health care professional undertakes

• **Patients** currently treated within each pathway
  – Questionnaires on satisfaction, experience and health outcomes
  – Extract (from hospital records) measures of:
    • *clinical outcomes*, such as 30-day mortality
    • *patient safety outcomes*, such as hospital acquired infections
    • *process outcomes*, such as length of stay
WP 5 aims: Differences in practice and organisation

- New roles and changes in established profession roles
- Sustainability of the new professional roles
- Integration and fragmentation of care pathways
- Perceptions of:
  - barriers to and facilitators of skill mix
  - benefits/challenges of new arrangements
  - costs/benefits to different stakeholders
- Facilitators of and solutions for improved team working
Perceptions of role changes - breast cancer

Have staff roles changed in last 5 years?

Tasks now done by new professionals
Motivating factors for new roles – Breast cancer

- Personal satisfaction
- Career opportunities
- Use of my qualifications
- Level of pay

Scotland, Germany, Netherlands, Czech Republic, Turkey, Norway, England

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# Measures of skill mix on breast cancer pathways

<table>
<thead>
<tr>
<th>Country</th>
<th>Exposure to new staff doing tasks</th>
<th>Integration scale</th>
<th>Specialisation scale</th>
<th>Single doctor is responsible</th>
<th>Care is well coordinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>0.46</td>
<td>6.4</td>
<td>7.8</td>
<td>2.9</td>
<td>4.1</td>
</tr>
<tr>
<td>Germany</td>
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<td>6.9</td>
<td>7.4</td>
<td>3.8</td>
<td>3.8</td>
</tr>
<tr>
<td>The Netherlands</td>
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<td>7.1</td>
<td>8.2</td>
<td>2.7</td>
<td>4.1</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.28</td>
<td>7.1</td>
<td>6.5</td>
<td>3.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Turkey</td>
<td>0.28</td>
<td>5.4</td>
<td>6.1</td>
<td>2.8</td>
<td>3.6</td>
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</tbody>
</table>
Exposure to new professionals, by site and country

Country labels: 1 Scotland, 2 Germany, 3 The Netherlands, 4 Italy, 5 Czech Republic, 6 Turkey, 7 Norway, 8 England
Planned project outcomes

• The contribution (nature and scope) of new professional roles

• Changes in roles of established professions, including physicians

• Barriers to, and incentives for, different types of skill mix

• Differences in outcomes for patients due to differences in skill mix

• Costs and benefits of different skill mixes

• Benchmarks for providers to test efficiency of existing skill mix

• Scope of new roles to improve integration of care
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