Approaches to chronic disease management in Europe

Health system response to NCDs: innovations and challenges

15th European Health Forum Gastein, 5 October 2012

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The nature of chronic conditions requires a different approach to service delivery

<table>
<thead>
<tr>
<th></th>
<th>Acute disease</th>
<th>Chronic illness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Abrupt</td>
<td>Generally gradual and often subtle</td>
</tr>
<tr>
<td>Duration</td>
<td>Limited</td>
<td>Lengthy and indefinite</td>
</tr>
<tr>
<td>Cause</td>
<td>Usually single</td>
<td>Usually multiple and changes over time</td>
</tr>
<tr>
<td>Diagnosis and prognosis</td>
<td>Usually accurate</td>
<td>Usually uncertain</td>
</tr>
<tr>
<td>Technological intervention</td>
<td>Usually effective</td>
<td>Often indecisive, adverse effects common</td>
</tr>
<tr>
<td>Outcome</td>
<td>Cure possible</td>
<td>No cure</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Minimal</td>
<td>Pervasive</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Professionals knowledgeable, patients inexperienced</td>
<td>Professionals and patients have complementary knowledge and experiences</td>
</tr>
</tbody>
</table>

Source: Holman & Lorig (2000)
Requirements for chronic illness care

Goals

- enhance functional status, minimise distressing symptoms, prolong life through secondary prevention and enhance quality of life

Requirements

- complex response over extended period of time
- co-ordinated inputs from a wide range of professionals
- access to essential medicines and monitoring systems
- promotion of active patient engagement
## Evidence points to improved outcomes of components of care coordination

<table>
<thead>
<tr>
<th>Main focus of intervention (number of studies)</th>
<th>Proportion (%) of studies with positive outcome for</th>
<th>Health</th>
<th>Service user satisfaction</th>
<th>Cost saving</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Changed relationships between service providers</strong>&lt;br&gt;e.g. case management, multi-disciplinary teams (33)</td>
<td></td>
<td>65.5%</td>
<td>66.7%</td>
<td>16.7%</td>
</tr>
<tr>
<td>(19/29)</td>
<td></td>
<td>(8/12)</td>
<td>(2/12)</td>
<td></td>
</tr>
<tr>
<td><strong>Coordination of clinical activities</strong>&lt;br&gt;e.g. joint consultations, shared assessments (37)</td>
<td></td>
<td>61.3%</td>
<td>33.3%</td>
<td>20%</td>
</tr>
<tr>
<td>(19/31)</td>
<td></td>
<td>(4/12)</td>
<td>(3/15)</td>
<td></td>
</tr>
<tr>
<td><strong>Improving communication between service providers</strong>&lt;br&gt;e.g. case conferences (56)</td>
<td></td>
<td>55.3%</td>
<td>54.5%</td>
<td>14.3%</td>
</tr>
<tr>
<td>(26/47)</td>
<td></td>
<td>(12/22)</td>
<td>(2/21)</td>
<td></td>
</tr>
<tr>
<td><strong>Support for clinicians</strong>&lt;br&gt;e.g. supervision for clinicians, reminder systems (33)</td>
<td></td>
<td>57.1%</td>
<td>57.1%</td>
<td>8.3%</td>
</tr>
<tr>
<td>(16/28)</td>
<td></td>
<td>(8/14)</td>
<td>(1/12)</td>
<td></td>
</tr>
<tr>
<td><strong>Information systems to support co-ordination</strong>&lt;br&gt;e.g. care plans; decision support; register (47)</td>
<td></td>
<td>60.5%</td>
<td>36.8%</td>
<td>15.4%</td>
</tr>
<tr>
<td>(23/38)</td>
<td></td>
<td>(7/19)</td>
<td>(2/13)</td>
<td></td>
</tr>
<tr>
<td><strong>Support for health/social care service users</strong>&lt;br&gt;e.g. education, reminders; assistance (19)</td>
<td></td>
<td>35.3%</td>
<td>50.0%</td>
<td>14.3%</td>
</tr>
<tr>
<td>(6/17)</td>
<td></td>
<td>(3/6)</td>
<td>(1/7)</td>
<td></td>
</tr>
<tr>
<td><strong>All studies</strong></td>
<td></td>
<td>55.4%</td>
<td>45.2%</td>
<td>17.9%</td>
</tr>
<tr>
<td>(36/65)</td>
<td></td>
<td>(14/31)</td>
<td>(5/28)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Powell Davies et al. 2008
### Improvements are typically associated with practice redesign

<table>
<thead>
<tr>
<th>Attempt to redesign practice</th>
<th>Measured outcomes improved (number of trials)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
</tr>
<tr>
<td>Substantial attempt to redesign practice</td>
<td>4</td>
</tr>
<tr>
<td>Some attempt to redesign practice</td>
<td>8</td>
</tr>
<tr>
<td>Minimal attempt to redesign practice</td>
<td>1</td>
</tr>
<tr>
<td>No attempt to redesign practice</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Coleman et al. 2009
Patients with chronic disease report deficiencies in care coordination

Source: Schoen et al. 2011
Support for patient engagement and self-management remains sub-optimal

Source: Schoen et al. 2011
What does this mean for health systems?

- An effective response to the rising burden of chronic disease requires a health system environment that allows for the development and implementation of structured approaches to chronic disease management.

- Countries are developing new models of healthcare delivery to achieve better coordination of services across the entire continuum of care.

- Review of approaches and models in place in 13 countries across Europe
  - Austria, Estonia, France, Germany, Hungary, Lithuania, Netherlands, Switzerland
  - Denmark, England, Italy, Latvia, Spain
The majority of approaches tend to focus on populations with defined conditions

- Most frequently targeted conditions: diabetes type 2, asthma/COPD, cardiovascular disease (chronic heart failure, IHD, stroke), cancer, mental health problems
- Approaches with generalist focus tend to be organised around older people
  - Frequently available in selected regions only and/or operated as pilot studies
- Types of approaches vary across and within countries
  - Care coordination (GP acts as principal coordinator)
  - Multidisciplinary team working (frequently led by GP)
  - Nurse-led approaches including managed discharge and case management

Source: DISMEVAL 2012
Strengthening coordination through structured disease management

- ‘Disease management programmes’
  - **Austria**: ‘Therapie aktiv’ (diabetes) (national); regional projects
  - **Denmark**: DMPs (various) (national through regions)
  - **France**: Sophia (diabetes) (national)
  - **Germany**: DMPs (various) (national)
  - **Hungary**: DMP (asthma) (national); diabetes care management (national)
  - **Italy**: IGEA (diabetes) (national through regions)
  - **Netherlands**: Care groups (various) (national)

- Wide variation in extent to which non-medical staff is involved in care delivery (e.g. Netherlands, Hungary, Italy)

- GP/family physician tends to remain principal provider/care coordinator’ (e.g. Austria, Germany, France)

Source: DISMEVAL 2012
Strengthening the role of nurses in care delivery and coordination

- Common in systems with tradition in multidisciplinary team working
- Nurse-led clinics
  - England, Hungary, Italy, Netherlands
- Nurse-led case management
  - England, Italy, Netherlands, Spain
- Challenging in systems where primary care traditionally provided by doctors in solo-practice and few support staff
  - Enhanced functions in care coordination or case management under development/piloted (e.g. Denmark, France; Lithuania)
  - Enhanced functions in patient self-management support and/or selected medical tasks but under supervision of GP/physician (Austria, France, Germany)
Reducing barriers between sectors

- Managing the primary/secondary care and/or secondary care/rehabilitation interface
  - Provider networks (France)
  - Integrated care contracting (Germany)
  - Care Coordination Pilot (Hungary)
  - ‘SIKS’ project (Copenhagen, Denmark)
  - ‘From On-demand to Proactive Primary Care’ (Tuscany, Italy)
  - (some) Reform pool projects (Austria)
  - Stroke service Delft (Netherlands)

- Managing the health and social care interface
  - (some) Integrated Care Pilots (England)
  - Partnership for Older People Project (England)
  - Multifunctional community centres (Hungary)
  - Improving intersectoral collaboration (pilot) (Lithuania)

Source: DISMEVAL 2012
The majority of approaches are funded from ‘usual’ sources

- Start-up funding
  - Supporting payers (municipalities, Denmark; integrated care pilots, England; integrated care contracts, Germany)
  - Supporting providers (provider networks, France)

- Financial incentives
  - Incentivise payers (municipalities, Denmark; DMPs, Germany)
  - Incentivise providers (DMPs, Austria; GPs (diabetes care), Denmark; provider networks, France; DMPs, Germany; some regional projects, Italy; care groups, Netherlands; Quality & Outcomes Framework, UK)
  - Incentivise patients (provider networks, France; DMPs, Germany; care groups, Netherlands)

Source: DISMEVAL 2012
**Levels of patient and clinician support vary**

- Patient access is typically granted in line with access to usual care.
- Many approaches are being implemented in selected geographical regions so potentially limiting access to defined population groups.
- The majority provide some form of patient self-management support, although the level and scope of support offered varies.
- The use of clinical information systems for chronic disease management tends to be the least developed strategy in most approaches.

*Source: DISMEVAL 2012*
Are these new approaches making a difference?

- Improvements reported mainly on process measures (eg eye examinations)
- Evidence of improvement of outcomes less certain
  - Evidence of improved survival of patients in German diabetes DMP => selection?
  - Lack of evidence of effect of improved clinical outcomes in Austrian diabetes DMP
  - Evidence of effect in subgroup of patients in Dutch diabetes care groups
  - English Integrated Care Pilot programme: increase in re-admissions (but fewer planned admissions); some worsening in patient experience (Roland et al. 2012)

Source: DISMEVAL 2012;
Challenges remain

- Need to better understand differential impacts of new approaches and ‘what works for whom’
- Need to better understand how specific local conditions influence the outcomes of a given programme
- Much of existing research evidence has focused on the management of a few specific diseases
  - Need to shift focus individuals with coexisting conditions or multiple health problems
Structured disease management is widely seen as a means to improve the quality and reduce the cost of care, and to improve health outcomes for the chronically ill. Yet, while intuitively appealing, the evidence on the ability of such approaches to actually do so remains uncertain. What we know about the impact of disease management is mainly based on small studies on high-risk patients, often undertaken in academic settings. There is a need to learn more about the effects of large, population-based programmes using universally accepted evaluation methods that are scientifically sound and are also practicable in routine settings.

The DISMEVAL project aimed to support this process through reviewing approaches to chronic care and disease management in Europe and through testing and validating possible evaluation methods and so provide evidence for best practices.