Between EBM and organizational structures: is there room in the black box to support prevention in primary care?

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Bologna, 8 June 18
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1. Between EBM and organizational structures: service processes
2. Disease management programs in EU as II prevention
3. Operation management for prevention in primary care
4. Evidences from 90.000 patients in Lombardy (CREG)
5. Suggestions for the future
To foster prevention in primary care we find policies focused on:

- EBM

- ORGANIZATIONAL STRUCTURES AND INCENTIVES

Is there additional managerial room, which may provide more effectiveness?

**Definition**

Operation and process management in health care. Its about:
- micro-management;
- Process assessment and redesign
- Professional roles and content planning
- Service models
- ICT for service support

To implement:
- Integrated care
- Ongoing patient education and engagement
- Collecting and monitoring patient outcomes data
Several European countries are developing *Disease Management Programs* (DMPs) as a systematic secondary prevention embedded in primary care.

**Why?**

Chronic conditions are having a growing **epidemiological** and **economic impact** throughout the world. 30% of the population in chronic conditions spend 70% of health care budget.

**Definition**

Disease management contents

- Proactive medicine
- Patient engagement and empowerment
- Case management to support patient compliance
- Multimorbidity approach
- Outcome oriented
- Systematic data sharing between patients, physicians, case managers
Assessing disease management programs as secondary prevention logics

A taxonomy that will be used to describe and compare the seven European DMPs selected for this study was developed.

2. DISEASE MANAGEMENT PROGRAMS

- **Boundaries of disease management program**
  - Settings of care
  - Combination of health and social elements
  - Target patient populations

- **Professional roles and responsibilities**
  - Program manager
  - Case manager
  - Care manager/Coordinator
  - Consultants

- **Payment scheme and incentives**
  - Financial incentives (PFP, PFC, bundled payment)
  - Non-monetary stimuli
Selection of countries

Six case studies were selected: the Netherlands, England, Germany, Sweden, Italy and France.

Search strategy

A literature review in academic databases and search engines (Google Scholar, PubMed and Scopus) was conducted.

Country reports

This study provides an overview of the key features of the healthcare systems in each of the countries reviewed. Then, it highlights some of the main DMPs that have been implemented in the selected countries.

- Primary care group ZIO (Maastricht–Heuvelland)
- Integrated Care Pilots
- Gesundes Kinzigtal
- Esther model
- CReG Model
- Case della Salute
- Sophia diabetes care programme
## Findings

**Within which boundaries are broad programs for chronic conditions developed in Europe?**

<table>
<thead>
<tr>
<th>Target population</th>
<th>Multimorbidity</th>
<th>Integration between health and social care</th>
<th>Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease-specific</td>
<td>✗</td>
<td>✗</td>
<td>From prevention to LTC nursing</td>
</tr>
<tr>
<td>Mixed</td>
<td>✓</td>
<td>✓</td>
<td>Complete care program</td>
</tr>
<tr>
<td>Generalist</td>
<td>✓</td>
<td>✗</td>
<td>Complete healthcare program</td>
</tr>
<tr>
<td>Elderly people</td>
<td>✗</td>
<td>✓</td>
<td>Complete care program (without prevention)</td>
</tr>
<tr>
<td>Panel of conditions</td>
<td>✓</td>
<td>✗</td>
<td>Primary care-centered model</td>
</tr>
<tr>
<td>Panel of conditions</td>
<td>✗</td>
<td>✓</td>
<td>Program without acute and sub-acute care</td>
</tr>
<tr>
<td>Disease-specific</td>
<td>✗</td>
<td>✗</td>
<td>From prevention to LTC nursing</td>
</tr>
</tbody>
</table>

*Table 1*
2. DISEASE MANAGEMENT PROGRAMS

How are roles and functions defined and allocated within different DMPs?

<table>
<thead>
<tr>
<th>Program manager</th>
<th>Case manager</th>
<th>Care manager</th>
<th>Consultant</th>
<th>Clear indication of professional roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional GP Care Association</td>
<td>GPs</td>
<td>Nurses</td>
<td>Hospital specialists</td>
<td>★★★</td>
</tr>
<tr>
<td>An appointed health care organization</td>
<td>Trained nurses</td>
<td>Mixed</td>
<td>Specialists, physiotherapists, dieticians and psychologists</td>
<td>★</td>
</tr>
<tr>
<td>Gesundes Kinzigtal GmbH</td>
<td>Varied</td>
<td>Physicians or psychotherapist</td>
<td>Specialists, physiotherapists and psychologists</td>
<td>★★</td>
</tr>
<tr>
<td>Qulturum</td>
<td>GPs</td>
<td>Mixed</td>
<td>Team specialists</td>
<td>★★</td>
</tr>
<tr>
<td>Regione Lombardia, ASLs</td>
<td>GPs</td>
<td>Physician</td>
<td>Hospital specialists</td>
<td>★</td>
</tr>
<tr>
<td>ASLs</td>
<td>Nurses</td>
<td>Nurses</td>
<td>Specialists</td>
<td>★★</td>
</tr>
<tr>
<td>Government</td>
<td>Trained nurses</td>
<td>GPs</td>
<td>Specialists</td>
<td>★★★</td>
</tr>
</tbody>
</table>

Table 3

Note: ★=No clear indication (case-by-case approach); ★★=Standardized and rigid indication; ★★★=Tailored indication
2. DISEASE MANAGEMENT PROGRAMS

How are roles and functions defined and allocated within different DMPs?

✓ In nearly all analyzed DMPs, nurses generally play a key role in care coordination or case management.

✓ The tasks and responsibilities of nurses employed in selected DMPs vary greatly, from nurses forming an integral part of primary care (the Netherlands, England), to a limited involvement in defined areas of care delivery (Germany).

✓ The allocation of roles within European DMPs is not always clearly defined (e.g. by law, protocols or guidelines) but sometimes follows a case-by-case approach.

<table>
<thead>
<tr>
<th>Clear aim</th>
<th>Detailed planning document</th>
<th>Case-by-case approach</th>
<th>Clear professional roles indication</th>
<th>Indication of professional roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔ ✔ ✔</td>
<td>★ ★ ★ ★ ★</td>
</tr>
<tr>
<td>✔ ✔ ✔ ✔</td>
<td>✔ ✔ ✔</td>
<td>✔</td>
<td>✔</td>
<td>★ ★</td>
</tr>
<tr>
<td>✔ ✔</td>
<td>✔</td>
<td>✔</td>
<td>★</td>
<td>★ ★</td>
</tr>
<tr>
<td>✔ ✔</td>
<td>✔</td>
<td>✔</td>
<td>★</td>
<td>★ ★</td>
</tr>
<tr>
<td>✔ ✔</td>
<td>✔</td>
<td>✔</td>
<td>★</td>
<td>★</td>
</tr>
<tr>
<td>✔ ✔</td>
<td>✔</td>
<td>✔</td>
<td>★</td>
<td>★ ★</td>
</tr>
</tbody>
</table>

Table 4
# 2. DISEASE MANAGEMENT PROGRAMS

## Findings

How are reward and compensation systems designed in European DMPs?

<table>
<thead>
<tr>
<th>INCENTIVES</th>
<th>Financial incentives</th>
<th>Non-monetary stimuli</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lump sum</td>
<td>Capitation</td>
</tr>
<tr>
<td>Both financial and nonmonetary</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Both financial and nonmonetary</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Both financial and nonmonetary</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Only nonmonetary stimuli</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both financial and nonmonetary</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Only financial</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Both financial and nonmonetary</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

*Table 5*
Several programs involve **pay-for-performance elements**: usually, an additional reimbursement against the completion of defined tasks (Germany) and/or the accomplishment of measurable goals (Netherlands, Italy).

Nearly all selected disease management programs involve **non-monetary stimuli**.

**Different actors** (program managers, providers and patients) receive financial and non-monetary incentives in the DMPs analyzed.

### Financial incentives
(Lump sum, Capitation, Pay-for-performance elements, Pay-for coordination elements, Bundled payment scheme elements, Copayment reduction)

<table>
<thead>
<tr>
<th>Program manager</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider Organization</td>
<td>1</td>
</tr>
<tr>
<td>Professionals</td>
<td>2</td>
</tr>
<tr>
<td>Patients</td>
<td></td>
</tr>
</tbody>
</table>

### Non-monetary stimuli

Table 6

11
Most financial incentives in European countries are related to the **structure** or **process** of care. This is an advantageous choice: the outcomes achieved depend on a range of factors, which are not always directly related on the quality of services.

<table>
<thead>
<tr>
<th>Financial incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
</tr>
<tr>
<td>✔</td>
</tr>
</tbody>
</table>

*NOTE: Structure* = To implement DMPs, and recruit and enroll patients in DMPs; To put in place “integrated” forms of care (mostly packages that cross institutional/sectoral boundaries); *Process* = To keep patients in DMPs for a target period of time; To ensure that the care protocols specified in DMPs are followed; To reach predefined targets on process measures; *Outcome* = To reach predefined targets or to reward the top y% of providers on an indicator.
Operation management in primary care is about:
- Design service features (patient journey): no bureaucratic duties/direct access
- Clarify professional roles
- Target patients and proactively search for them
- CRM (patient relation management)
- ICT to support clinical decisions, to support patient compliance, to support professional integration

**Operation management** in health care is
- Opening the black box of service processes
- Searching for added value and cutting low value steps
- Setting epidemiological targets
- Considering different clusters of patients with different literacy and heterogeneous social networks
Drugs consumptions: a comparison between patient in CCM and others (2011; 2015), €

Patients selected for CCM are more expensive

From 2011 to 2015 the drug consumption gap between CCM patients and other has reduced
Hospital expenditures: a comparison between patient in CCM and others (2011; 2015), €, age 50-90

4. EVIDENCES FROM 90.000 PATIENTS IN LOMBARDY (CREG)

Hospital admission has a slower progression rate for CCM patients
WE NEED A THIRD PILLAR: OPERATION MANAGEMENT IN PRIMARY CARE

IMPLEMENTATION ISSUES

Operation and process management in PRIMARY CARE IS:

- Outside GPS professional core competences;
- Far away from LHA management scope;
- Complex and clusterized
- For different disease stages the professional roles in the arena change: low standardization

To implement:

- Results can be measured
- Enthusiasm can be generated improving results and patients commitment
- An interesting room for practical experiments
Thank you for your attention