Accountable Care in Germany

Sino-German experiences and challenges in regional health care
Deutscher Kongress für Versorgungsforschung, 11.10.2018, Berlin

L. Sundmacher, W. Schüttig, R. Flemming
Department of Health Services Management
Ludwig-Maximilians-Universität München
Exemplary patient pathway of a female, 67 years old patient, suffering diabetes, hypertension and back pain.
Accountable Care in Deutschland
- Verbesserung der Patientenversorgung durch mehr Vernetzung und informierten Dialog

Motivation and Background

Structural framework of ambulatory care in Germany

• No gatekeeping system or systematic coordination within the ambulatory care sector and between the ambulatory and hospital sector is worthy of improvement\(^1,2\)

→ High number of treating physicians from the ambulatory and inpatient sector
→ Challenging communication and cooperation

→ Continuity of care is challenging but could improve health outcomes\(^3\)

• Improvement of health care through medical or systemic changes is possible\(^1,3\)

• Networking of physicians could lead to higher continuity of care and thus could improve health outcomes such as reduced ambulatory care-sensitive hospitalisations\(^4\)


Accountable Care in Deutschland
- Verbesserung der Patientenversorgung durch mehr Vernetzung und informierten Dialog

Project Information

- Financed by the German federal joint commission for a three-year term
- Interdisciplinary research team
  - Health insurances
  - Associations of statutory health insurance physicians and their scientific institute
  - Universities (medical science, biostatistics, health services management)
- The aim of the study is an intervention to improve the patients’ health care:

1. Identify outpatient networks: Which physicians care for the same patient population within a region?
2. Analysis of the quality of care within the networks: How well do the networks care for their patients?
3. Analysis of reasons of differences in quality: What are the determinants for strengths or weaknesses of care?
4. Network specific feedback in moderated dialogues: Do networking and feedback improve the health care?

Konsortialpartner Accountable Care in Deutschland
## Study Population

<table>
<thead>
<tr>
<th>Region I (North Rhine-Westphalia)</th>
<th>Region II (Schleswig-Holstein &amp; Hamburg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of networks*</td>
<td>50 (50)</td>
</tr>
<tr>
<td>Number of patients</td>
<td>9.6 millions</td>
</tr>
</tbody>
</table>

### Share of Patients with relevant diseases

<table>
<thead>
<tr>
<th>Disease</th>
<th>Region I</th>
<th>Region II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ischaemic heart diseases</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Heart failure</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Other diseases of the circulatory system</td>
<td>25%</td>
<td>23%</td>
</tr>
<tr>
<td>Bronchitis &amp; COPD</td>
<td>25%</td>
<td>20%</td>
</tr>
<tr>
<td>Mental and behavioural disorders due to use of alcohol or opioids</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Back pain [dorsopathies]</td>
<td>36%</td>
<td>30%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>42%</td>
<td>40%</td>
</tr>
<tr>
<td>Gastroenteritis and other diseases of intestines</td>
<td>15%</td>
<td>16%</td>
</tr>
<tr>
<td>Intestinal infectious diseases</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Influenza and pneumonia</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Ear nose throat infections</td>
<td>39%</td>
<td>41%</td>
</tr>
<tr>
<td>Depressive disorders</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Gonarthrosis [arthrosis of knee]</td>
<td>9%</td>
<td>7%</td>
</tr>
</tbody>
</table>

*The numbers without brackets define the intervention group and the number in brackets the control group. **All information on the patient population are preliminary results.
Accountable Care in Deutschland
- Verbesserung der Patientenversorgung durch mehr Vernetzung und informierten Dialog

Organization of the Intervention Study

1. Identify and cluster randomize networks
2. Characterize health care based on indicators and patient pathways

Konsortialpartner Accountable Care in Deutschland
### Organization of the Intervention Study

3. Moderated quality circles and structured feedback for a time period of 2 years

- Quarterly provided feedback on patient outcomes
- Feedback through patient based indicators for selected patient populations aggregated on a network level
- Organized quality circles every 6 months with structured and moderated dialogue

<table>
<thead>
<tr>
<th>Structural indicators</th>
<th>Process indicators</th>
<th>Outcome indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of physicians in the network (per specialization)</td>
<td>Rate of diabetes patients consulting a general practitioner at least 4 times a year</td>
<td>Mortality rate (per diagnosis group)</td>
</tr>
<tr>
<td>46 (17 general practitioners, 10 internists, 4 specialists in neurology, …)</td>
<td>98%</td>
<td>2.4% (5% of ischaemic heart disease patients, 4% diabetes patients, …)</td>
</tr>
<tr>
<td>No. of patients in the network (per diagnosis group)</td>
<td>Rate of diabetes patients consulting an eye specialist</td>
<td>No. of cases in the emergency department of heart failure patients</td>
</tr>
<tr>
<td>4,822 (1191 diabetes patients, 757 ischaemic heart disease patients, …)</td>
<td>59%</td>
<td>147 (No of heart failure patients: 320)</td>
</tr>
<tr>
<td>Demographical information about the patients</td>
<td>Rate of diabetes patients getting a HbA1c test</td>
<td>No. of patients with more than 1 hospital case (per diagnosis group)</td>
</tr>
<tr>
<td>Ø Age: 61.1y; ~ 59% female patients</td>
<td>91%</td>
<td>63 (7 heart failure patients, 2 back pain patients, …)</td>
</tr>
</tbody>
</table>
Accountable Care in Deutschland
- Verbesserung der Patientenversorgung durch mehr Vernetzung und informierten Dialog

Organization of the Intervention Study

3. Moderated quality circles and structured feedback for a time period of 2 years
   - Quarterly provided feedback on patient outcomes
   - Feedback through patient based indicators for selected patient populations aggregated on a network level
   - Organized quality circles every 6 months with structured and moderated dialogue

<table>
<thead>
<tr>
<th>Structural indicators</th>
<th>Process indicators</th>
<th>Outcome oriented indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of physicians in the network</td>
<td>46 (17 general practitioners, 10 internists, 4 specialists in neurology, ...)</td>
<td>Rate of diabetes patients</td>
</tr>
<tr>
<td>Rate of diabetes patients getting a HbA1c test</td>
<td>91%</td>
<td>2.4% (5% of ischaemic)</td>
</tr>
</tbody>
</table>

- Use the quality circles to collaborate among physicians caring for the same patients
- Discuss the network specific indicators
- Develop network specific strengths and weaknesses and their reasons
- Work out action plans to improve the patients’ health care quality and working conditions

Demographical information about the patients
- Ø Age: 61.1y; ~59% female patients
- Rate of diabetes patients getting a HbA1c test: 91%
- No. of patients with more than 1 hospital case (per diagnosis group): 63 (7 heart failure patients, 2 back pain patients, ...)

Konsortialpartner Accountable Care in Deutschland
Organization of the Intervention Study

4. Evaluation at the end of the study period

• Comparing patient results of the intervention and control networks and evaluation of the process
• Answering the research questions

3. Analysis of reasons for differences in quality of care:
   What are the determinants for strengths or weaknesses of care?

4. Network specific feedback in moderated dialogues: Do networking and feedback improve the health care?

Konsortialpartner Accountable Care in Deutschland
Accountable Care in Deutschland
- Verbesserung der Patientenversorgung durch mehr Vernetzung und informierten Dialog

Status Quo and Outlook: Start of the Intervention

<table>
<thead>
<tr>
<th></th>
<th>Region I</th>
<th>Region II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of physicians in networks</td>
<td>3,620</td>
<td>2,861</td>
</tr>
<tr>
<td>Number of physicians per network</td>
<td>72 [21-120]</td>
<td>57 [21-119]</td>
</tr>
<tr>
<td>Proportion of networks in urban regions</td>
<td>96%</td>
<td>68%</td>
</tr>
<tr>
<td>Total number of patients in networks</td>
<td>1,120,697</td>
<td>780,226</td>
</tr>
<tr>
<td>Amount of shared patients per network</td>
<td>22,413 [12,157 – 37,075]</td>
<td>15,604 [3,278 – 39,112]</td>
</tr>
<tr>
<td>Proportion of patients with multimorbidity per network</td>
<td>75% [69% - 88%]</td>
<td>72% [54% - 82%]</td>
</tr>
</tbody>
</table>

Konsortialpartner Accountable Care in Deutschland

Detmold
Aachen
Duisburg/Essen
Düsseldorf
Arnsberg
Köln/Bonn
Münster
Hamburg
Schleswig
Kern
Südost-Holstein
Unterelbe
THANK YOU FOR YOUR ATTENTION!

... more information available: www.acd-projekt.de

L. Sundmacher, W. Schüttig, R. Flemming
Department of Health Services Management
Ludwig-Maximilians-Universität München