Generating economic impact and common welfare by clinical wisdom, targeted prevention and data analysis – the case of Kinzigtal in Germany

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h.hildebrandt@optimedis.de

King’s Fund Integrated Care Summit
OptiMedis AG

- Management and investment company with health sciences background
- Cooperation with doctors, hospitals, health insurance funds, pharmaceutical & medical industry to provide entire regions with integrated (full-service) health care solutions
- Analyses of health care data and independent, data-based real-life care research
- Best practice model: Gesundes Kinzigtal

CEO of OptiMedis AG

Helmut Hildebrandt
Pharmacist, studies in sociology, over 30 years management and consulting experience for: WHO and ministerial boards, hospitals, physician networks and others

Currently 13 employees (health economy, management, social sciences, IT and data sciences)

OptiMedis gets support from and is controlled by a supervisory board

Dr. med. Manfred Richter-Reichhelm
Dr. Hans Jürgen Ahrens
Prof. Dr. rer. nat Gerd Glaeske
Dr. med. Hans-Nikolaus Schulze-Solce
Prof. Dr. rer. pol. Eberhard Wille
Prof. Dr. med. Dr. phil. Alf Trojan

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Kinzigtal is in the Southwest of Germany (today we are looking forward to replicate the model in several regions of Germany as well as in NL, AU and CH)

Cooperation Contract / Regional Health Management Company

Cooperation – in development:

- Hamburg Billstedt-Horn
- Bielefeld
- Berlin/Brandenburg
- Mannheim
- Greifswald
- Bayern
- Leipzig

Other Countries:
- Netherlands
- Austria
- Switzerland
Integrated Care System Gesundes Kinzigtal (GK) Region in the Southwest of Germany

- Start: 2006
- Regional population overall: ~ 71,000
- Population (AOK & SVLFG): ~ 33,000
- Ø-age pop. (AOK & SVLG): 45.7
- Total costs of care (2013)*: 73 Mio. €
- Active GK enrollees: ~ 9,650
- Ø-age enrollees: 61.6
- Reg. cooperation partners: ~ 160
- Cooperating physicians/psychother.: 63 (~ 58%)

* AOK + SVLFG, without dentistry
Lovely region – lovely people?
Contractual agreements of Gesundes Kinzigtal

Objective: Triple Aim*

Area: rural (postcode)

Contract duration: 9 years (and continuing)

Flexibility: Individual contract (adjustments possible)

Integrator* as facilitator

An “integrator” is an entity that accepts responsibility for all three components of the Triple Aim for a specified population. Importantly, by definition, an integrator cannot exclude members or subgroups of the population for which it is responsible.

* Donald M. Berwick, Thomas W. Nolan and John Whittington
The Triple Aim: Care, Health, And Cost
Health Affairs, 27, no.3 (2008):759-769

doi: 10.1377/hlthaff.27.3.759
Corporate structure of the “Integrator”

Two committed partners:

Medical experience regarding medical supply problems on site, contact with other regional providers (about 44 GPs, psychotherapists, specialists + some Hospital Physicians)

Public Health & Health economic knowledge, prevention & health promotion, controlling- and management competence, investment capability

Company shares:

- 66,7% MQNK e.V. (Physician network)
- 33,3% OptiMedis AG

Contracting partners:

- Physicians
- Psychotherapists
- Hospitals
- Pharmacies
- ...
Gesundes Kinzigtal: More than a physician network –
A local network with various cooperation partners

Around **500 people** participate as collaborators (~ 160 organizations)

<table>
<thead>
<tr>
<th>September 2014</th>
<th>Partners</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled Insurees of AOK and SVLFG</td>
<td></td>
<td>9,547</td>
</tr>
<tr>
<td>Providers with partnership contracts</td>
<td>GPs, specialists, psychotherapists – ~58% of those physicians working in the region Kinzigtal</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Staff in the provider offices</td>
<td>~ 190</td>
</tr>
<tr>
<td></td>
<td>Hospitals – around 85% of all cases</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Physiotherapists</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Nursing homes</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Ambulatory nursing agencies/ psychosocial agencies</td>
<td>6</td>
</tr>
<tr>
<td>Further partners in cooperation</td>
<td>Pharmacies – around 70% of all pharmacies</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Self-help groups, enterprises (Network Healthy Companies in Kinzigtal), government/ administration</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Fitness-centers – ca. 80% in the region Kinzigtal</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Voluntary associations, sports clubs, social clubs</td>
<td>37</td>
</tr>
</tbody>
</table>

→ Need for professional relationship management and communication
The pillars of optimization and quality –
Integrated health care system Gesundes Kinzigtal

Gesundes Kinzigtal

Primary prevention
- Health lectures
- Club sports
- Course offers (e.g. aqua fitness)

Health programs
- Heart failure
- Metabolic syndromes
- Back pain
- Psychic crises
- Depression
- Geriatric care
  etc.

Cross-cutting issues
- Incentive program
- Quality indicators
- World of health®
- Health management
  etc.

Committed network partners

Payment Model Gesundes Kinzigtal

Schematic overview of financial flows including “Gesundes Kinzigtal”
The economic basis – the contribution margin

The management company invests and benefits from its success

**Tangible investment:**
- Additional payments for management and substituting actions/prevention

**Intelligence investment:**
- Physicians know-how to streamline processes
- Know-how of the management (and OptiMedis AG)
- Cost cutting agreements (rebates and/or success remuneration)

**Contribution margin**

**Total Costs**

**Health insurance**

**Normally expected costs**
(allocations by means of the Morbi-RSA algorithm)

A balanced multi-level remuneration system for cooperating providers to support the re-orientation towards the Triple Aim

- to the regional physician network (MQNK e.V.)
- to individual providers under contract with Gesundes Kinzigtal GmbH
- to individual providers under contract with Gesundes Kinzigtal GmbH

- Distribution of shared gains
- Pay for performance (under development)
- Add-on fee-for-service payments for special Gesundes Kinzigtal services
- „normal“ remuneration from statutory health insurance contracts
Web-based potential analyses based on regional claims data => background for regional task forces and “evidence informed practice”

Example: 2012, F32. Depression (inpatient & outpatient diagnosis), region: Kinzigtal

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>∅ Patients 2005 - 2012</th>
<th>expansion rate 2011 to 2012 %</th>
<th>alteration rate 2005 to 2012 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients with diagnosis</td>
<td>2.732</td>
<td>2.538</td>
<td>-0,0%</td>
<td>27,4%</td>
</tr>
<tr>
<td>Prevalence</td>
<td>8,7%</td>
<td>8,2%</td>
<td>-0,8%</td>
<td>24,4%</td>
</tr>
<tr>
<td>Ø-Age patients</td>
<td>59,81</td>
<td>60,57</td>
<td>-0,3%</td>
<td>-2,2%</td>
</tr>
<tr>
<td>Ø-Life expectancy</td>
<td>81,39</td>
<td>79,67</td>
<td>1,7%</td>
<td>2,5%</td>
</tr>
<tr>
<td>Female %</td>
<td>69,3%</td>
<td>72,1%</td>
<td>-1,5%</td>
<td>-8,5%</td>
</tr>
<tr>
<td>Ø-Charlson-Comorbidity-Score</td>
<td>1,6</td>
<td>1,4</td>
<td>-10,9%</td>
<td>30,5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>patients with diagnosis total</td>
<td>2.732</td>
<td>2.538</td>
<td>26.904</td>
<td>0,0%</td>
<td>27,4%</td>
</tr>
<tr>
<td>Hospital patients total</td>
<td>2.672,6</td>
<td>2.492,7</td>
<td>26.369,7</td>
<td>-0,5%</td>
<td>26,2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>∅ Patients 2005 - 2012</th>
<th>expansion rate 2011 to 2012 %</th>
<th>alteration rate 2005 to 2012 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sickness benefit</td>
<td>257,91</td>
<td>271,19</td>
<td>78,36</td>
<td>140,8%</td>
</tr>
<tr>
<td>Outpatient care (incl. dialysis)</td>
<td>806,70</td>
<td>811,14</td>
<td>471,88</td>
<td>1,0%</td>
</tr>
<tr>
<td>Inpatient care</td>
<td>2.355,18</td>
<td>1.918,07</td>
<td>805,54</td>
<td>23,6%</td>
</tr>
<tr>
<td>Rehab./Cur expense</td>
<td>125,47</td>
<td>130,00</td>
<td>52,00</td>
<td>7,1%</td>
</tr>
<tr>
<td>other services payment amount</td>
<td>426,42</td>
<td>521,66</td>
<td>284,11</td>
<td>-7,6%</td>
</tr>
<tr>
<td>Drug costs</td>
<td>1.109,61</td>
<td>1.099,59</td>
<td>496,02</td>
<td>12,0%</td>
</tr>
<tr>
<td>Overall costs per patient</td>
<td>5.081,29</td>
<td>4.751,67</td>
<td>2.187,90</td>
<td>16,0%</td>
</tr>
</tbody>
</table>
System of measures for the physicians health services cockpit focused on the Triple Aim

<table>
<thead>
<tr>
<th>Outcome Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Outcome</strong></td>
</tr>
<tr>
<td>What impact has my doctor’s practice on health outcomes?</td>
</tr>
<tr>
<td><strong>Economical Outcome</strong></td>
</tr>
<tr>
<td>What impact has my doctor’s practice on financial outcomes?</td>
</tr>
<tr>
<td><strong>Patient Experience</strong></td>
</tr>
<tr>
<td>What impact has my doctor’s practice on the improvement of the individual experience of care?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Internal Processes</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can we provide optimal care processes?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structure:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Learning and Innovation</strong></td>
</tr>
<tr>
<td>In which field can we make improvements? Is there a solid base for success in the future?</td>
</tr>
<tr>
<td><strong>Patient Characteristics</strong></td>
</tr>
<tr>
<td>Who ist the target group and (how) do we reach it?</td>
</tr>
<tr>
<td>What morbidity do the patients of my doctor’s practice have?</td>
</tr>
</tbody>
</table>
Example of a feedback report – so called health services cockpit – for a GP practice

### 4. Quarter 2012 AOK/LKK

#### Quality indicators and key figures

<table>
<thead>
<tr>
<th></th>
<th>Your Practice</th>
<th>ß-NL-GP's (n=17)</th>
<th>ß-NL-GP's (n=22)</th>
<th>Min/Max GP (n=39)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Economical outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allocation (Morbi-RSA) per patient</td>
<td>354,45</td>
<td>765,33</td>
<td>687,61</td>
<td>937,79</td>
</tr>
<tr>
<td>- Total costs per patient</td>
<td>841,81</td>
<td>764,78</td>
<td>677,81</td>
<td>251,72</td>
</tr>
<tr>
<td>- Contribution margin per patient</td>
<td>3,64</td>
<td>0,55</td>
<td>10,60</td>
<td>326,69</td>
</tr>
<tr>
<td><strong>Health outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital cases per 1,000 patients (risk-adj.)</td>
<td>82,91</td>
<td>87,42</td>
<td>98,55</td>
<td>42,35</td>
</tr>
<tr>
<td>Decedents % (risk-adj. mortality)</td>
<td>0,51%</td>
<td>0,57%</td>
<td>0,60%</td>
<td>0,00%</td>
</tr>
<tr>
<td>Patients with osteoporosis &amp; fracture %</td>
<td>3,76%</td>
<td>6,90%</td>
<td>12,90%</td>
<td>0,00%</td>
</tr>
<tr>
<td><strong>Patient satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impression of practice very good - exc. %</td>
<td>56,7%</td>
<td>61,0%</td>
<td>75,9%</td>
<td>83,3%</td>
</tr>
<tr>
<td>Weisse Liste / GeKIM 2012/13</td>
<td>52,8%</td>
<td>53,0%</td>
<td>75,1%</td>
<td>79,2%</td>
</tr>
<tr>
<td>*ß-NLP here = ß-Germany</td>
<td>85,2%</td>
<td>84,6%</td>
<td>90,1%</td>
<td>95,0%</td>
</tr>
</tbody>
</table>

### 2. Process – Where do we have to be excellent?

#### Diagnostic quality

| Unspecified diagnoses % | 20,4% | 20,1% | 24,1% | 12,5% |
| Suspected diagnoses % | 1,6% | 1,3% | 1,6% | 0,6% |

#### Utilization

| Patients >= 35 with health-check-up % | 7,5% | 7,8% | 7,1% | 17,1% |
| Patients incapable of working % | 39,0% | 41,7% | 43,8% | 33,8% |
| Length of incapacity for work | 5,52 | 5,93 | 6,07 | 3,87 |

#### Improvement of Medication

| Generic quota | 93,0% | 88,6% | 87,2% | 93,6% |
| Pat. with heart-fail. & guideline prescr. % | 79,9% | 75,4% | 72,9% | 100,0% |
| Patients >= 65 with pot. inad. med. (PRISCUS) | 14,3% | 13,2% | 12,5% | 4,2% |
| Patients >=65 with inad. prescr. (FORTA D) % | 4,0% | 4,8% | 4,3% | 0,6% |

### 1. Structure – What is the target population? Where can we improve structure elements to generate better outcomes?

#### Patient structure

| Ø-Number of patients | 508,0 | 465,3 | 338,9 | 931,0 |
| Ø-Age | 57,1 | 59,4 | 52,5 | 53,5 |
| Female % | 56,6% | 56,5% | 55,8% | 65,2% |
| Patients capable of work % | 55,2% | 58,5% | 60,5% | 72,7% |
| Patients dependent on care % | 6,7% | 7,7% | 7,0% | 13,0% |

#### Morbidity

| Ø-Cherslon-comorbidity-score | 1,05 | 1,26 | 1,14 | 1,99 |
| Regional GP-risk-score (Morbi-RSA) | 1,16 | 1,65 | 0,64 | 1,29 |

#### Enrollment

| IC-participants % | 88,8% | 61,1% | 10,2% | 88,8% |
| DMP-participants % | 67,4% | 53,9% | 32,0% | 81,9% |

#### Learning & innovation

| Participation in quality circles (Ø = 1,0) | 1,3 | 1,0 | - | 2,1 |
Every second year the enrollees of Gesundes Kinzigtal select their representatives in a meeting of members.

This Patients Advisory Committee represents the voice of the enrollees of Gesundes Kinzigtal.

Actually the Patients Advisory Committee consists of five elected members and one ombudsman.
Various public festivities and exhibitions to be present in the community.
… and working closely together with municipalities, local authorities, regional sport clubs and other associations

2007: „Fest der Gesundheit“, Haslach
2010: „Fest der Gesundheit“, Gengenbach
2011: „Transparente Mensch“, Haslach
2012: „Fest der Gesundheit“, Haslach
   „Begehbare Darm“, Haslach
2013: „Kinderfest“, Haslach
2014: „Schwimmbad-Jubiläum“, Haslach
2014: Spendenaktion zugunsten der gesundheitsfördernden Arbeit der Vereine im Kinzigtal
The relationship management with members, insurees and the public: marketing

Quarterly magazines, annual reports, flyers, posters and more
Organization of the external evaluation of „Gesundes Kinzigtal“

- **Shared decision making**
  (Prof. Härter, Univ.Clinic Hamburg/ Univ.Clinic Freiburg)

- **Over-, under- and misuse of care**
  (Dr. Ingrid Schubert, PMV forschungsgruppe, Univ. Köln)

- **Internal team of evaluation**
  (GK GmbH, OptiMedis AG, AOK BW, LKK BW)

- **Active health promotion for elderly patients**
  (Prof. v.d.Knesebeck / Univ.Clinic Hamburg)

- **Coaching & evaluation of processes**
  (Proces-eval.: Dr. Nübling, GEB, Denzlingen; Coaching: Susanne Marx, Wiesbaden)

- **EKIV* (Coordination of evaluations, Dr. Siegel Univ. Freiburg)**

* www.ekiv.org
All insurees with residence in the Kinzigtal region

1. Program participants vs. risk adjusted non-program participants
2. Enrolled insurants vs. risk adjusted non-enrolled insurants
3. Patients of cooperating physicians vs. patients of non-cooperating physicians (attribution via number of contacts > 50%)
4. Real development versus predictions

external control group or predicted costs via risk adjustment scheme
4.56 Mio € Delta in year 7 for 31,156 insures of AOK

4.56 € absolute increase of the contribution margin in Kinzigtal for the whole AOK-population (total costs of care without dental)

Development of nominal costs, actual costs, contribution margin, and insured population of AOK in Gesundes Kinzigtal

Shared between AOK and Gesundes Kinzigtal GmbH

The external scientific evaluation (control group based approach) shows even better results (here AOK and LKK results combined)

cost savings per insuree living in the Kinzigtal region in comparison to a control group drawn from AOK and LKK insurees in Baden-Württemberg*

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>out-patient treatment</td>
<td>0,00</td>
<td>-5,20</td>
<td>-1,42</td>
<td>27,18</td>
<td>26,59</td>
<td>28,79</td>
<td>28,10</td>
</tr>
<tr>
<td>medication</td>
<td>0,00</td>
<td>-0,56</td>
<td>14,51</td>
<td>27,22</td>
<td>35,57</td>
<td>44,63</td>
<td>68,47</td>
</tr>
<tr>
<td>hospital</td>
<td>0,00</td>
<td>-95,18</td>
<td>63,12</td>
<td>44,22</td>
<td>77,71</td>
<td>90,90</td>
<td>80,89</td>
</tr>
<tr>
<td>remedies</td>
<td>0,00</td>
<td>-2,98</td>
<td>-3,86</td>
<td>-4,47</td>
<td>-4,30</td>
<td>-3,90</td>
<td>-2,81</td>
</tr>
<tr>
<td>medical aids</td>
<td>0,00</td>
<td>19,75</td>
<td>18,31</td>
<td>25,68</td>
<td>25,74</td>
<td>26,14</td>
<td>26,72</td>
</tr>
<tr>
<td><strong>sum</strong></td>
<td>0,00</td>
<td>-84,16</td>
<td>90,65</td>
<td>119,84</td>
<td>161,32</td>
<td>186,57</td>
<td>201,37</td>
</tr>
</tbody>
</table>

*) Standardisierung: jahresweise nach Altersgruppen und Geschlecht, Referenzpopulation: »Kinzigtal«
AOK+LKK: AU Kosten komplett nicht verfügbar.
Medical outcomes (internal evaluation)

- Less fractures after program participation „Strong Muscles – Solid Bones“ (n= 438) for patients with osteoporosis
- Longer survival rates for GK-enrollees, less potential years of life lost (trend V2 Statistisches Bundesamt)

Medical outcomes (external evaluation)

- Less insurants with incapacity for work
- Reduction of hospital cases for patients with mood [affective] disorders

Patient satisfaction (external evaluation)

Very high recommendation rate of Gesundes Kinzigtal members “certainly” or “probably”: 92,1%

„I live healthier now“ …. Answering in a positive way is correlated with the intensity of involvement, cooperation and shared-decision making

All respondents: 26,1 %

Chronically ill: 31,7 %

GK-program participants: 37,6 %

Definition of goals: 45,4 %

Some barriers on the way to success

- Initial mistrust between health insurance companies and medical network + too much pressure of health insurance towards cost savings
- Changing structures during the contractual partnership within the physician network can affect the performance
- Timely interchange and matching of data from different sources
- Fatigue of some partners after a certain period of time
- Mistrust in benefits of data analyses and their correctness
- It took quite a long time to change familiar structures and behaviors
Success factors of the management approach

- Regional care company as “integrator”
- Combination of evidence based population and indication based improvement initiatives
- Going beyond healthcare

- Relationship management and communication
- Balanced payment system oriented towards achieving the Triple Aim
- Comprehensive implementation of technology: ICT & data-driven management approach

- Coopetition = cooperation and competition through transparency and benchmarking
- Common culture and friendly interactions
- Long lasting contractual relationship
Integrated Care Experiences And Outcomes In Germany, The Netherlands, And England

Abstract: Care for people with chronic conditions is an issue of increasing importance in industrialized countries. This article reviews three recent efforts at care coordination that have been evaluated yet not included in systematic reviews. The first is Germany’s Gesundes Kinzigtal, a population-based approach that organizes care across health service sectors and indicates in a targeted region. The second is a program in the Netherlands that bundles payments for patients with certain chronic conditions. The third is England’s integrated care approach, which takes a variety of approaches to care integration for a range of target populations. Results have been mixed. Some intermediate clinical outcomes, process indicators, and indicators of provider satisfaction improved; patient experience improved in some cases and was unchanged or worse in others. Across the English pilots, emergency hospitalizations declined; hospital readmissions increased; and patients felt more in control of their care. Therefore, our second conclusion is that the German integrated care program, which targeted roughly 50 percent of the population in a well-defined area regardless of people’s age or health status, deserves to be more closely studied by researchers and policy makers in the United States as they search for solutions to help accountable care organizations overcome the weaknesses of fragmentation, find appropriate financial incentives, and meet the needs of people with chronic conditions.

By Reinhard Busse and Juliane Stahl

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Health Care Management at the Technische Universität Berlin at the time of this study. She is now a research fellow at the German Institute for Economic Research, in Berlin.
Our „take-home-message“

A clever long lasting contract, oriented towards „Integrated Chronic Care“ and „Triple Aim“ with the possibility to invest and to analyze the claims data, guarantees success – in the log run.

„But: there is no free lunch“: Regional integrated care for a whole population and the re-integration of Public Health, health promotion (in the meaning of WHO-Euro and the Ottawa Charata) and traditional health care management needs a lot of invest and courage….

… … but out of the health sciences there is so much input to be taken and the work delivers such an amount of pride, excitement and generates real value for the whole society … so it is real worthful.
Thanks for your attention and your feedback

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See Video + website

www.gesundes-kinzigtal.de
engl: www.gesundes-kinzigtal.com