Session 43AB
Better Care, Better Value: A Hospital Transformation

Presented by:
Geert van den Enden
Sander Visser
Better Care, Better Value
A Hospital Transformation

March, 2017

Disclosure of Relevant Financial Relationships

The following faculty of this continuing education activity has no relevant financial relationships with commercial interests to disclose:
- Geert van den Enden

The following faculty of this continuing education activity has financial relationships with commercial interests to disclose:
- Sander Visser
  - PwC – Employee/Partner – Led implementation of Bernhoven as consultant
Speakers (faculty)

Geert van den Enden BA, MBA
sr. Exec. vice President COO/CFO Bernhoven Hospital

Sander Visser Msc, MBA
Partner PwC Strategy&

Learning Objectives

- Understand the steps needed to make the move from fee-for service to value-based business models.
- Gain insight on implementing a “right care, right setting” strategy and the roles of various stakeholders under a value based model.

This seminar will demonstrate how rising healthcare costs can be curbed by eliminating redundant care and focusing on quality of decision making rather than efficiency and price. The presenters developed a strategy for Bernhoven Hospital, in partnership with two health insurers, with the aim of increasing quality of care, while lowering the costs. The strategy is based on a quality ambition in four distinctive care models for which 100 initiatives were identified. The first wave of initiative started in 2015 and initial results include a claims reduction of 8 percent while maintaining profitability.
Agenda

• Quick overview of the Dutch Healthcare system
• **Bernhoven case:** Illustration of potential for quality improvement and cost reduction in Healthcare
• Questions and discussion

Total costs of curative care in the Netherlands are ~€43Bn

**Costs of curative care**
The Netherlands, in billion euros

- **Specialist Medical Care:** €22.2
- **Medicine and medical aids:** €6.0
- **General Practitioner:** €2.7
- **Other:** €12.4
- **Total:** €43.4

Approximately 6% of GDP

**Players in the market**

**Insurers**
- 25 Healthcare insurers, offered by nine corporations
- Four largest corporations take ~90% of the market

**Providers**
- 81 general hospitals
- 8 Academic Medical Centers
- 200+ independent treatment centers

The competition model aims at competitive dynamics contributing to cost control and quality of care

Room to move
- Freedom of nominal premium setting
- Freedom to offer supplementary deductibles, group discounts, and extra insurance
- Freedom of contracting (insurer ↔ health care provider)
- Freedom of price negotiations
- Freedom of capital investments (capital costs in DRG’s)

Changed incentives and responsibilities
- From budgeting to output pricing/p4p
- Insurers and providers have to compete for clients
- Quality indicators for hospital and outpatient care
- Increase amount of risk of insurers and providers
- Duty of care for health insurers

Clear government safeguards
- Compulsory acceptance for basic insurance
- Compulsory health insurance and income related subsidy
- Legally defined coverage of basis insurance
- No premium differentiation between insured
- Health Care Authority (market development, price regulation)
- Health Insurance Board (package of entitlements, risk equalization)

Introducing Bernhoven Hospital

- General regional hospital in south of the Netherlands
- 380 beds, 18,000 annual admissions, 13,000 surgeries
- €200Mn revenue
- 2250 FTE employees of which ~150 doctors
- Mission: offering the very best care in togetherness
- Innovation – game changer
  - 2013: Introducing ‘doctor in the lead’ in our organisation
  - 2014: Designing a new strategy: ‘Dream’
  - 2015: Implementing the new strategy: doing less
  - 2016 chosen as the most patient friendly hospital of the Netherlands
Why Change?

<table>
<thead>
<tr>
<th>Societal mission</th>
<th>Reality in existing models</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial stimuli</td>
<td>Aiming for quality leads to the ‘best’ care</td>
</tr>
<tr>
<td>Value chain</td>
<td>Collaborate to provide the best care</td>
</tr>
<tr>
<td>Governance structure</td>
<td>Presence of effective countervailing power</td>
</tr>
</tbody>
</table>

Tension between the ‘societal mission’ and reality in the healthcare sector

Looks familiar? Rising costs of healthcare…

- What is the future perspective for a general (non-academic) hospital?
- Costs of healthcare are growing uncontrollably

A societal challenge!

[Graph showing expenses health and well being 1998-2014 (€ billion)]

Source: CBS from NVZ Brancherapport Algemene ziekenhuizen 2015 Zorg loont
Bernhoven owns up to its societal responsibility

Innovative partnership between hospitals, GPs and health insurers

- Strategy focused on higher quality, lower volumes => reduction in claims
- Multi-year (lumpsum) agreement with insurers to cover for loss of income during the transition
- New patient-focused operating model in which the hospital is led by four models in which care is provided (patient-centered)
- Appropriate governance model that supports the transition.

A DREAM was born....

---

More is less...

OVERKILL
An avalanche of unnecessary medical care is harming patients physically and financially. What can we do about it?

By Atul Gawande

How much of orthodox medicine is evidence based?

John S Gennari

BMJ 2007;335:951
doi:10.1136/bmj.39388.393970.1F (Published 08 November 2007)

LESS MEDICINE, MORE HEALTH
7 Assumptions That Drive Too Much Medical Care

Author: Dr. H. Gilbert Welch
Physician in the lead, a paradigm shift

‘Doctor in the lead’ on 3 levels

From a focus on volume/efficiency
- Growing costs
- Increase number of treatments
- Less time for patient, less time for quality

To a focus on quality and personalized care
- Improve efficiency
- More time for patient, more time for quality
- Reduce costs
- Decrease unnecessary care and treatments

From a focus on volume to a focus on quality

Setting the right conditions

“The right context for meaningful conversations”

Naturally better
- Medical content in business plan
- Optimizing portfolio
- Co-operation Insurers
- Financial conditions for continuity of care

Naturally hospitable
- Most patient friendly hospital
- Hospitality & Culture Change
- Doctor lead & Doctor owned

Naturally inspiring
- Vitality
- Working together with partner hospitals
- Management & governance in the right organisational structure

The context for successful change
After 1 year: Quality Up, total cost of health 8% down!

- Created a mindset of delivering patient centered care, whatever the time or effort required
- Overall, 8% decline in health care costs
- ~40% of reduction attributable to initiatives (rest due to initiatives that have not been quantified, and mindset shift)
- Over 100 quality initiatives planned, 35 initiatives implemented
- Huge effort to put the right conditions in place (financial, culture change)
- Still substantial challenges ahead
- Now implementing an operating model that allows us to organize for truly patient centered care

Overall: 8% decline in claims through fewer/ cheaper interventions, admissions and consultations

Breakdown of claim reduction
€Mn difference between 2014 and 2015

- Total reduction: 8% of total claims
- 12.0
- 4.1
- 3.7
- 4.1

~40% of reduction can be brought back to impact of quality initiatives. The rest is due to initiatives that have not (yet) been quantified, or a broad mindset shift that is difficult to quantify

Hypotheses/initiatives that could explain reduction
- Awareness around shared decision making
- Implementation of decision tools
- Investing in medical staff at the ER reduces admissions
- Actively managing length of stay
- Initiatives to reduce referrals
  - MD in GPs office
  - GP education
  - Actively referring patients back to GPs
The initiatives drive fundamental change - examples

<table>
<thead>
<tr>
<th>Example initiative</th>
<th>Essence of change</th>
<th>Impact '14 - '1H '16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute care: Experienced staff at the ER</td>
<td>• Investing in the medical staff at the ER avoids unnecessary admissions</td>
<td>• 13% decrease in clinical admissions from ER</td>
</tr>
<tr>
<td>Solution shop: Shared decision making</td>
<td>• More time for decision making prevents unnecessary surgery</td>
<td>• -16% gall bladder surgery, -24% hernia surgery, -9% hip replacement</td>
</tr>
<tr>
<td>Solution shop: Optometric screening centre</td>
<td>• Screening of eye patients by optometrist reduces waiting time and unnecessary consultations at eye MD</td>
<td>• ~60% of screened patients do not have to go to eye MD</td>
</tr>
<tr>
<td>Solution shop: Dermatologist at GP</td>
<td>• Dermatologists see selected patients at GPs: learning experience for GP and reduction of unnecessary consultations</td>
<td>• &gt;80% of patients do not have to go to hospital</td>
</tr>
<tr>
<td>Chronic care: Actively referring patients to GP</td>
<td>• Closer cooperation between MDs and GPs on Cardiovascular risk management patients</td>
<td>• ~2900 CVRM patients have been referred back to their GPs</td>
</tr>
<tr>
<td>Focused Factory: Clustering of interventions</td>
<td>• Clustering of high volume interventions and improvement of perioperative process reduces duration of hospital stay</td>
<td>• Duration of hospital stay for patients treated in focused factory ~50% less than outside focused factory</td>
</tr>
</tbody>
</table>

13% reduction in clinical admissions from ER after investing in medical staff

Intervention
• In 2014 we gradually invested in the quality and level of experience of our ER staff:
  - 24/7 ER doctors
  - M.D.’s directly at the ER: internal medicine, Cardiology and Surgery

Discussion
• M.D.’s enthusiastic about added value at the ER
• New ways of working take time to get used to:
  - Division of tasks between M.D. / ER doctor
  - Implications for planning
  - Assistance of M.D. at the ER

Other outcome measures
• Wait times: 7.5% shorter (partly due to additional ED staff)
• Follow-up: -8.3% follow-up consultations after ED visits
• Diagnostics: -9.0% fewer patients requiring diagnostics (but different type of Dx)
• Length of stay: 11.0% reduction in clinical length of stay
Broad awareness for Shared decision making

**General awareness campaign:** Patients are encouraged to ask 3 questions

1. What are my options?
2. What are the pros and cons of those options?
3. What does that mean in my situation?

Several discussions with staff on the importance of decision making quality

“At Bernhoven, we don’t take substantive decisions in one session”

Impact of decision aids for selected interventions

**Reduction of gall bladder surgery**

- 2014: No surgery 2%, Surgery 98%
- 2015: No surgery 4%, Surgery 96%
- 2016: No surgery 5%, Surgery 95%

**Reduction of hernia surgery**

- 2014: No surgery 3%, Surgery 97%
- 2015: No surgery 17%, Surgery 83%
- 2016: No surgery 21%, Surgery 79%

**Use of tools**

- Tool used: 2015: 2%, 2016: 3%
- Tool offered - not used: 2015: 7%, 2016: 6%
- No tool offered/available: 2015: 31%, 2016: 31%

Bernhoven surgeon: after discussion their options “4 out of the last 6 gall bladder patients decided not to go for surgery but go for the watchful waiting approach”
~60% of screened optometric patients do not have to go to eye M.D.

Impact in 2015, Total inflow and those requiring eye M.D.

Impact in 2015, Total inflow and those requiring eye M.D.

Intervention: optometric screening center

<table>
<thead>
<tr>
<th>Regular route</th>
<th>Optometric screening route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>specificity criteria</td>
</tr>
<tr>
<td>Specific criteria</td>
<td>Referral to eye M.D. when necessary</td>
</tr>
<tr>
<td>Directly to eye M.D.</td>
<td>Optometric screening</td>
</tr>
<tr>
<td>Screened out</td>
<td>eye M.D. required</td>
</tr>
</tbody>
</table>

Other outcome metrics
- Optometric consult saves €74 per patient compared to eye M.D.
- Positive patient experience measured

More than 80% of patients seen by dermatologist in the GP office do not have to go to hospital

Majority of patients do not have to go to hospital for further diagnostics

<table>
<thead>
<tr>
<th>Seen by dermatologist at GP</th>
<th>Referred to hospital</th>
<th>Not referred to hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>443</td>
<td>56 (13%)</td>
<td>387 (87%)</td>
</tr>
</tbody>
</table>

Dermatologists see patients at GPs, preventing >80% of the patients to visit the hospital

- Dermatologists see selected patients at GPs
  - Every 2 weeks, 1.5 hour session at selected GP
  - 9 GP office covers 25% of populations
- Positive experience for both dermatologists and GPs
  - Reduction of unnecessary consultations in the hospital (and less administrative burden)
  - Learning experience for GP
- Consequently, we see a reduction in number of unique patients visiting the hospital for dermatology
• Close cooperation between GPs and cardiologist on implementing new CVRM patient protocol
• Cardiologists screen CVRM patients more critically
  – Regular follow up consultation really necessary in the hospital?
  – Possible to hand-over follow up to GP?

~2900 cardiovascular risk management patients were referred back to their GP

Intervention

<table>
<thead>
<tr>
<th># of CVRM patients referred back to their GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2015</td>
</tr>
<tr>
<td>Mar 2015</td>
</tr>
<tr>
<td>May 2015</td>
</tr>
<tr>
<td>Jul 2015</td>
</tr>
<tr>
<td>Sep 2015</td>
</tr>
<tr>
<td>Nov 2015</td>
</tr>
<tr>
<td>Jan 2016</td>
</tr>
<tr>
<td>Mar 2016</td>
</tr>
<tr>
<td>May 2016</td>
</tr>
<tr>
<td>Jul 2016</td>
</tr>
<tr>
<td>Sep 2016</td>
</tr>
</tbody>
</table>

Other outcome metrics

• 5% of patients was seen back in the hospital within half a year of being referred to their GP

Clustering of interventions

Strong reduction in duration of hospital stay after clustering of medical interventions

Clustering of high volume interventions and optimization of perioperative process

Implementation

• Organizing interventions in ‘focused factories’
  – Clustering interventions
  – Personalization of patient experience in perioperative process: reduced duration of hospital stay, etc.
• Focused factory for surgery started with gal bladder and hernia, orthopedics started with hip and knee replacement

Discussion

• Dedicated teams are enthusiastic about increased ‘calmness’
• Potential to improve interventions and perioperative process
• New ways of working requires big cultural change

2017 CONGRESS ON HEALTHCARE LEADERSHIP
Why does it work? Conditions to win!

- Doctors Owned Hospital
- Financially sound business case
- Quality initiatives To drive Change
- Lean Operating model
- Strengthened portfolio
- ‘Doctor in the lead’ philosophy
- Portfolio of care that fits the hospital’s profile
- Top talent, experienced leadership, appropriate structure
- Value chain approach and longer term view
- Patient centered, 4 care based business models
- Informal, self-conscious, agile, innovative, on the field
- ~100 substantive plans developed bottom-up
- ‘Doctor in the lead’ philosophy

Long term financial commitments needed to secure success

**Business case**

- The initiatives will lower the hospital’s claims by driving down the number of unnecessary treatments (‘PxQ’)
- The benefits will be shared between the hospital and the insurance company (‘gain sharing’)
- The hospital will be reimbursed to do the necessary initial expenditures and investments
  - Initial investments are needed to generate cost reductions later on
- Insurance company faces potential benefit by scale-up ‘lessons learned’ to other institutions
  - Learnings can be used during negotiations with other health care institutions (multiplier effect)

**Illustration**

- Base scenario
- Reduction potential
- Bernhoven
- Other hospitals
- Total

2017 CONGRESS ON HEALTHCARE LEADERSHIP
Our new operating model

Board of Directors

Support services

Acute care | Solution shop | Focused factory | Chronic care

- Acute care
  - Acute and intensive care
  - Internal nursing department
- Solution shop
  - Outpatient clinic
  - Medical support units (radiology, lab, etc.)
- Focused factory
  - Administration
  - Surgery
- Chronic care
  - Chronic care clinic
  - Transmural network care

Competence centers

- Acute and intensive care
- Internal nursing department
- Medical support units
- Administration
- Surgery

Provide services to the model

Advise/Treat (in acute setting)

Acute and intensive care

Managing the end-to-end acute care process

Integrated care

Solution shop

Managing for quality of decision-making and collaboration with the 1st line

Focused factory

Managing integrated healthcare process of recording, surgery, recovery and redundancy

Chronic care

Done in collaboration with supply chain partners

Conclusion

- A very rewarding strategy for Berhoven:
  - Societal responsible strategy, well received by our community
  - Creates a strong competitive position towards our competitors
  - Creates a base to expand our number of patients, as...

We provide better care at significant lower costs
Discussion:
We are well on our way, but also facing challenges..
What is your view or experience?

- **Old vs new**: New realities, but ‘old world’ thinking is stubborn
- **Limitation of resources**: Measuring and evidence building not in our nature
- **Small group of pioneers**: It always boils down to the same group of initiators
- **Dare to be different**: Many forces within the sector that move the other way
- **No good deed goes unpunished?**: We decline claims faster than we anticipated

---

Geert van den Enden

In 2014 Mr. Van den Enden is appointed the CFO of Bernhoven Hospital in The Netherlands. Van den Enden joined Bernhoven to help design and implement an unique concept of improving healthcare at lower costs. The engaged strategy attracts many other hospitals from all over the world to see what the results are and how it is done. Before joining Bernhoven Geert was the CFO at Saint Maartens clinics in The Netherlands, member of the (ISOC).

Mr. Van den Enden started his career in the Dutch Ports, where he was in engaged the Ports logistics and flows of traffic and goods.

Mr. Van den Enden studied Logistics & Economics at the International School of Economics in Rotterdam where he earned his BA-degree. Mr. Van den Enden holds an MBA from the Portsmouth University, UK.
Sander Visser

- Sander Visser. MBA.
- Partner at PwC Strategy& in The Netherlands
- Leader of Strategy& Health Care Advisory practice in the Netherlands.
- MBA from Kellogg School of Management

+31 88 792 3516  sander.visser@strategyand.nl.pwc.com  www.strategyand.pwc.com/nl

Bibliography/References

- Presented initiatives are a selection of successful initiatives implemented in Bernhoven – these are the result of brainstorming sessions with medical doctors and management of the hospital
- Presented figures are based on observations in Bernhoven, or otherwise shown in de sheets

Additional resources

- “Quality as a Medicine” by S. Visser, R. Westendorp, K. Cools, J. Kremer, A. Klink  
- “The Innovator's Prescription: A Disruptive Solution for Health Care” by C. Christensen, J. Grossman, J. Hwang
- “The arduous quest for translating health care productivity gains into cost savings. Lessons from their evolution at economic scoring agencies in the Netherlands and the US” by A. Klink, S. Visser, H. Schakel, P. Jeurissen (Health Policy, Volume 121, Issue 1, 1 – 8)