Implementing Pay for Quality at Unimed-BH: lessons learned

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Unimed-BH

Paulo Borem, MD
Consultant
Part one
The Brazilian health sector
Brazil: 7th biggest GNP, 6th biggest private health market in the world

Annual expenditure in health (US dollars) 2010

- US$ 1.2 Trillion
  - US$ 4000 per capita
  - US$ 61.5 Billion
  - US$ 674 per capita

- US$ 117.4 Billion
  - US$ 157 per capita
  - Japan

- US$ 89.3 Billion
  - Germany

- US$ 69.2 Billion
  - France

- US$ 64.6 Billion

Fonte: IMF, Panorama Econômico Mundial, abr 2010.
How is the Brazilian health sector organized?

The system is predominantly private and market-oriented.

US$ 130.7 billion = 8.4% of the GNP

- SUS (Public and universal)
  - 43.2% of the expenses
  - US$ 54.9 billion/year

- Private health sector (23% of the population)
  - 56.8% of the expenses
  - US$ 75.8 billion/year

- 61.5 million*

Health plans and out-of-pocket expenses with medication, hospital care and other services

*In September 2009. Sources: ANS and IBGE (2009)
The Unimed System

- The world's biggest health cooperative model
- Founded in 1967
- 373 medical cooperatives
- 110,000 physicians
- 17 million clients
  - and 73,000 companies served
- Consolidated billing
  - of US$17 billion (2010)
Unimed-Belo Horizonte (UBH):
Some of our figures

One of the 373 nonprofit medical cooperative

- **988,000** clients in our portfolio, with 85% satisfaction
- **R$ 1,57 bi** annual gross income
- **5,000** physicians with 82% satisfaction
- **75%** clients covered through their employers
- **50%** of health plan market in BH
- **Owns 10 facilities**
  - 8 out-patient and 2 hospitals (352 beds)
- **40,000** clients monitored in P4Q health care programs
- **288** Contracted network: hospitals, labs and clinics

*According to Exame Magazine's Biggest and Best Companies 2009*
Improving quality care

More financial resources, aligned to quality

<table>
<thead>
<tr>
<th>Pay for Hospital Accreditation (incentives to hospitals)</th>
<th>Chronic Disease P4Q (incentives to physicians)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased overall efficiency</td>
<td>Pay for information</td>
</tr>
<tr>
<td>Reductions in readmissions, length of stay and hospital-induced infections</td>
<td>Quality of ambulatory care (diabetes, renal failure, depression, childhood asthma)</td>
</tr>
<tr>
<td>Continuing education and adoption of ongoing improvement measures</td>
<td>Health promotion and prevention (cancer screening – mammography, cervix cancer and colon cancer)</td>
</tr>
<tr>
<td>Patient satisfaction</td>
<td>Patient satisfaction</td>
</tr>
</tbody>
</table>
Hospital Unimed:

250 beds

Capacity: 18,000 patients/month (emergencies)
Hospital Unimed in 2014:
600 beds

www.unimedbh.com.br
Maternity and Day Hospital
Contagem Unit
Office Center and Institute for Education and Research in Health
Churchill Unit for ambulatory care
Health Promotion Center
Barreiro Hospital
Center for Health Promotion and General Hospital

www.unimedbh.com.br
Health Promotion Center
## Health promotion

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of participants *</th>
</tr>
</thead>
<tbody>
<tr>
<td>New born nursing home visit</td>
<td>7,617</td>
</tr>
<tr>
<td>Nutrition care</td>
<td>4,559</td>
</tr>
<tr>
<td>Pregnancy care</td>
<td>2,159</td>
</tr>
<tr>
<td>Smoking cessation groups</td>
<td>1,708</td>
</tr>
<tr>
<td>Vaccination</td>
<td>1,457</td>
</tr>
<tr>
<td>Educational lectures</td>
<td>1,221</td>
</tr>
<tr>
<td>Diabetes Mellitus care</td>
<td>2,082</td>
</tr>
<tr>
<td>Hypertension care</td>
<td>416</td>
</tr>
<tr>
<td>Geriatric care</td>
<td>370</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21,589</strong></td>
</tr>
</tbody>
</table>

*In 2010
Part two
Paying for Quality in Chronic Disease Management
Pay-for-quality in chronic disease management

✓ Introduction
✓ Our strategy
✓ Our programs
✓ Results
✓ Challenges for 2011
The burden of chronic diseases in Brazil

- $9.3 billion: WHO projection for the Brazilian national income loss from heart disease, stroke and diabetes in 2015

- $49 billion: cumulative projected losses in the next 10 years from deaths due to heart disease, stroke and diabetes

- Over the next 10 years deaths from chronic diseases will increase by 22% and deaths from diabetes will increase by 82%

- $4 billion WHO estimation of economic gain of the next 10 years if Brazil achieve a 2% annual reduction in the national-level of chronic disease death rates
The decision to innovate

Why did Unimed-BH embark on a program in payment for quality (P4Q) in 2007?

<table>
<thead>
<tr>
<th>Context and problems to solve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predominance of fee-for-service model</td>
</tr>
<tr>
<td>Hospital-centered medical care provided by specialists</td>
</tr>
<tr>
<td>Fragmented health care</td>
</tr>
<tr>
<td>Physician pay improvement policies were not met health care improvements for the clients</td>
</tr>
<tr>
<td>Late identification of chronic pathologies, avoidable hospitalization</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resulting in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsatisfactory remuneration for physicians</td>
</tr>
<tr>
<td>Difficult patient access</td>
</tr>
<tr>
<td>Increasing costs</td>
</tr>
</tbody>
</table>
Pay-for-quality in chronic disease management

- Introduction
- **Our strategy**
- Our programs
- Results
- Challenges for 2011

www.unimedbh.com.br
Our strategy

- Use knowledge to increase prevention
- Avoid the poor management of the chronic condition
- Encourage the use of primary care services
- Reduction in acute emergency interventions
- Reduction in overall hospital admissions
- Reduction in healthcare costs

Optimized health outcomes

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Our objectives

- Implement a fair medical payment policy
- Establish a continuing medical education program
- Provide integrated and multidisciplinary care
- Encourage commitment of all parties

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Our design

- Primary care physicians, geriatricians, cardiologists, endocrinologists, pneumologists and nephrologists were invited
- Disease-management protocols designed with the participation of cooperative members
- Voluntary physician participation
- Voluntary client participation with signed term of agreement in accordance with regulatory agencies
P4Q in chronic diseases

Unimed-BH is re-designing, refining, and developing new approaches to increase results in chronic disease treatment.

QUALITY DIMENSION
- Clinical quality
- Efficiency
- Patient-focused

DOMAIN
- Clinical effectiveness
- Technical efficiency
- Client satisfaction

MEASURES
- HBP control
- LDL control
- Mammography rate
- Evidence-based exam prescription
- Referral of the physician to family
- Waiting time to schedule
- Guidance on the disease

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Chronic disease management

Enrollment
- Risk stratification
- Compliance of physicians
- Aggregate the data

Definition of the care plan

Following the care plan

Annual bonus
- If doctors input clinical results

Nurses and doctors analyze the data and call the clients
- If goals have been reached

www.unimedbh.com.br
Pay-for-quality in chronic disease management

- Introduction
- Our strategy
- Our programs
- Results
- Challenges for 2011
### CCV health program goals, targets and incentives

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral to cardiac rehabilitation program (post CABG, PTCA, cardiac failure)</td>
<td>Y/N</td>
</tr>
<tr>
<td>Referral to the smoking cessation group</td>
<td>Y/N</td>
</tr>
<tr>
<td>Blood pressure control</td>
<td>Target</td>
</tr>
<tr>
<td>LDL</td>
<td>Target</td>
</tr>
</tbody>
</table>
## Diabetes Mellitus program goals, targets and incentives

<table>
<thead>
<tr>
<th>Indicators</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual ophthalmological evaluation</td>
<td>Y/N</td>
</tr>
<tr>
<td>Referral to the smoking cessation group</td>
<td>Y/N</td>
</tr>
<tr>
<td>Visit to the multidisciplinary prevention group</td>
<td>Y/N</td>
</tr>
<tr>
<td>Blood pressure control</td>
<td>Target</td>
</tr>
<tr>
<td>LDL</td>
<td>Target</td>
</tr>
<tr>
<td>Glucose control</td>
<td>Target</td>
</tr>
</tbody>
</table>

[www.unimedbh.com.br](http://www.unimedbh.com.br)
## Chronic kidney disease program goals, targets and incentives

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral to the smoking cessation group</td>
<td></td>
</tr>
<tr>
<td>Blood pressure control</td>
<td></td>
</tr>
<tr>
<td>Utilization of Drugs</td>
<td></td>
</tr>
</tbody>
</table>
### COPD program goals, targets and incentives

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referral to the smoking cessation group</td>
<td>Target</td>
</tr>
<tr>
<td>Referral to the pulmonary rehabilitation</td>
<td>Target</td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>Target</td>
</tr>
</tbody>
</table>
## Mental health

**program goals, targets and incentives**

<table>
<thead>
<tr>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizations</td>
</tr>
<tr>
<td>Emergency rooms visits</td>
</tr>
</tbody>
</table>

**Crisis management:** in case of clinical decompensation, the program encourages outpatient care by enabling payment of extra visits
Childhood asthma
program goals, targets and incentives

<table>
<thead>
<tr>
<th>Indicators</th>
<th>None during 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalizations</td>
<td></td>
</tr>
</tbody>
</table>

**Crisis management:** in case of clinical decompensation, the program encourages outpatient care by enabling payment of extra visits

www.unimedbh.com.br
Geriatric care
program goals, targets and incentives

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza vaccine</td>
<td>Target</td>
</tr>
<tr>
<td>Use of inappropriate medication</td>
<td>Target</td>
</tr>
<tr>
<td>Doctor of reference</td>
<td>Target</td>
</tr>
</tbody>
</table>

www.unimedbh.com.br
Well child care
program goals, targets and incentives

Risk factor identification for chronic diseases and conditions

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Max 2 per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency room usage</td>
<td></td>
</tr>
</tbody>
</table>
Pay-for-quality in chronic disease management

- Introduction
- Our strategy
- Our programs
- Results
  - Global
  - Specific
- Challenges for 2011
## Client participation in the programs

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular diseases</td>
<td>1844</td>
<td>3744</td>
<td>5019</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2158</td>
<td>2598</td>
<td>2729</td>
</tr>
<tr>
<td>Well child care</td>
<td>2570</td>
<td>3760</td>
<td>5372</td>
</tr>
<tr>
<td>Childhood Asthma</td>
<td>478</td>
<td>833</td>
<td>824</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>-</td>
<td>393</td>
<td>1357</td>
</tr>
<tr>
<td>Geriatric care</td>
<td>-</td>
<td>-</td>
<td>4579</td>
</tr>
<tr>
<td>Chronic kidney diseases</td>
<td>-</td>
<td>-</td>
<td>312</td>
</tr>
</tbody>
</table>

Total enrollment
## Cooperative members participation in the programs

<table>
<thead>
<tr>
<th>Program</th>
<th>2008</th>
<th></th>
<th>2009</th>
<th></th>
<th>2010</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% total</td>
<td>n</td>
<td>% total</td>
<td>n</td>
<td>% total</td>
</tr>
<tr>
<td>CCV Health</td>
<td>85</td>
<td>10.0</td>
<td>99</td>
<td>10.9</td>
<td>111</td>
<td>12.7</td>
</tr>
<tr>
<td>Diabetes</td>
<td>84</td>
<td>9.9</td>
<td>102</td>
<td>11.2</td>
<td>127</td>
<td>14.5</td>
</tr>
<tr>
<td>Well Child Care</td>
<td>91</td>
<td>18.4</td>
<td>114</td>
<td>24.1</td>
<td>154</td>
<td>35.4</td>
</tr>
<tr>
<td>Childhood Asthma</td>
<td>39</td>
<td>7.9</td>
<td>46</td>
<td>9.7</td>
<td>43</td>
<td>9.9</td>
</tr>
<tr>
<td>Mental Health</td>
<td>-</td>
<td>-</td>
<td>18</td>
<td>15.7</td>
<td>35</td>
<td>31.0</td>
</tr>
<tr>
<td>Geriatric care</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>72</td>
<td>19.1</td>
</tr>
</tbody>
</table>
Annual bonuses paid per program

<table>
<thead>
<tr>
<th>PROGRAMS</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well child care</td>
<td>$243,000.00</td>
<td>$330,600.00</td>
</tr>
<tr>
<td>Geriatric care</td>
<td>$140,000.00</td>
<td>$190,000.00</td>
</tr>
<tr>
<td>CCV Health</td>
<td>$130,000.00</td>
<td>$180,000.00</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>$95,000.00</td>
<td>$130,000.00</td>
</tr>
<tr>
<td>Childhood Asthma</td>
<td>$32,000.00</td>
<td>$45,000.00</td>
</tr>
<tr>
<td>Mental Health</td>
<td>$41,000.00</td>
<td>$56,000.00</td>
</tr>
<tr>
<td>Chronic renal failure</td>
<td>$5,000.00</td>
<td>$6,000.00</td>
</tr>
</tbody>
</table>
Annual bonuses paid to cooperative members

- 2007: $4,000.00
- 2008: $80,000.00
- 2009: $335,000.00
- 2010: $880,000.00
- 2011: $1,200,000.00
Pay-for-quality in chronic disease management

- Introduction
- Our strategy
- Our programs

Results
- Global
- Specific

Challenges for 2011
Mental health

Emergency room before and after the program

![Graph showing emergency department visit rates per 10,000 person-days before and after a program. The graph indicates a decrease in visit rates after the program.]
Mental health

Hospitalizations before and after the program

[Graph showing hospitalization rates per 100,000 patient-days before and after the program, with a downward trend after the program.]
Childhood asthma

Outpatient care before and after the program

Before: 4.788
After: 5.457

+14%
Childhood asthma

Emergency room before and after the program

Before: 3.398

After: 2.749

-19%
Childhood asthma

Hospitalizations before and after the program

Before: 148
After: 94

-37%
Childhood asthma

Health care costs before and after the program

Before
Total costs = $462,000.00

After
Total costs = $460,000.00
Pay-for-quality in chronic disease management

- Introduction
- Our strategy
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- Results
  - Global
  - Specific
- Challenges for 2011

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Increase the number of physicians participating

Our goal: 750 physicians participating in 2011
Increase the number of patients participating

Our goal: 35,000 patients participating in 2011
Part three

Paying for Quality at Unimed-BH network
Unimed-BH network: improving the quality of care

- Problems with the quality of care
  - Accreditation
  - P4Q
  - What we have learned

www.unimedbh.com.br
Brazilians hospitals (World Bank, 2009)

- Inadequate management
- Lack of accountability
- Contracts fee-for-service based

Hospital procedures consume 70% of financial resources

Small size, low complexity, and they are 34% less efficient in comparison to the best hospitals

Source: Hospital Performance in Brazil: The search for excellence, 2009
Quality problems in Brazilian hospital network

Quality gap: inequity
- More qualified hospitals in metropolitan areas
- Unsafe hospitals in small towns

Serious deficiencies:
- Structural
- Process
- Results: lack of standardization of clinical process and evidence based medicine
Unimed-BH network: improving the quality of care

- Problems with the quality of care
- Accreditation
- P4Q
- What we have learned

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The National Organization for Accreditation (ONA)

- A nongovernmental, nonprofit organization that accredits health care organizations in Brazil
- Supported by many stakeholders (government, hospitals, health plans and medical societies)
- Metrics based on PAHO, WHO, and the Joint Commission
- Contracts with independent audit companies

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The National Organization for Accreditation (ONA) methodology

Design based on Donabedian’s concept of quality

Levels of ONA accreditation:

- **Structure**
  - Level 1 Accreditation: Minimum standards in patient safety and legal documentation
  - Level 2 Full Accreditation: Process management (design, documentation and standardization)
  - Level 3 Excellence Accreditation: Culture of ongoing improvement and results

- **Processes**

- **Results**

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Unimed-BH network: improving the quality of care

- Problems with the quality of care
- Accreditation
- P4Q
- What we have learned

www.unimedbh.com.br
Why did Unimed-BH adopt P4Q?

To motivate hospitals to provide better care and more rational management

Unimed-BH expected:

- Increased overall efficiency and patient satisfaction
- Health promotion and prevention
- Raise the quality of care
- Incentives to use the new IT tools
- Reductions in readmissions and length of stay
Why did Unimed-BH adopt P4Q?

- Encourage through incentives the adoption of evidence-based medicine
- Make sure the network met the minimum requirements established by the law
- Meet provider demands for more financial resources aligned with quality
- Strengthen the bond between Unimed-BH and the hospital network
Program premises and design

- Started in 2005
- US$ 30 million invested in five years
- Designed and conceived by our professional staff
- Financial and technical support from Unimed-BH
- Hospital participation is voluntary
- 36-month ideal deadline to achieve accreditation
- ONA based
<table>
<thead>
<tr>
<th>Index</th>
<th>Goal</th>
<th>Incentive</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation process</td>
<td>Start</td>
<td>7% increase in per diem amount</td>
<td>UBH’s auditors</td>
</tr>
<tr>
<td></td>
<td>Being within the deadline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accreditation status</td>
<td>Certification</td>
<td>7% level I 9% level II 15% level III</td>
<td>ONA hired independent auditors</td>
</tr>
<tr>
<td></td>
<td>Maintain the certification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Unimed-BH’s hospital quality accreditation program

Benefits for the hospitals and Unimed-BH

- Culture of continuing education and ongoing improvement
- More financial resources, aligned to quality
- Opportunity for organizational self-knowledge
- All hospitals formed quality management teams
- Long-term investments (structure, equipment, processes and human resources)
- Improvement in hospital processes that impact the Cooperative’s operation (authorizations, bill delivery, fewer disputes of charges)
- Image reinforcement
Unimed-BH’s hospital quality accreditation program

Results

<table>
<thead>
<tr>
<th>STATUS</th>
<th>Hospitals</th>
<th>Laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accreditation/</td>
<td>23 (48%)</td>
<td>8 (25%)</td>
</tr>
<tr>
<td>Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ONA 2</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>ONA 3</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>ISO 9001</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>ISO 14000</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>ISO 18000</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>NIAHO</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>PALC</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>
Unimed-BH’s hospital quality accreditation program

- Twelve more service providers (specialized clinics and laboratories) certified by ONA, ISO, and PALC

- Indirect encouragement for the qualification of the health sector’s productive chain: laboratory, imaging, hemotherapy, hemodialysis and other services
Important messages to providers

- There is an absolute need to give priority to investments in information technology.
- There is no need to fear assessment.
- Failures and errors are opportunities to improve.
- Clinical and management measures are negotiated at the beginning of the program.
Unimed-BH network: improving the quality of care

✓ Problems with the quality of care
✓ Accreditation
✓ P4Q
✓ What we have learned
What we have learned

- We should continually learn from high performance organization models: Group Health Cooperative, Geisinger Clinic, Mayo Clinic, Kaiser Permanente and SaludCoop (Colombia).

- We should continually invest in our own network, in primary care implementation, in IT development, in protocols based on Evidence Based Medicine and in payment reform (Pay for Quality).

- We might consider vertical integration with other small UNIMEDs.

- We should continue to develop new products, especially for the emerging middle class in Brazil.
What we have learned

- It takes a long time and a continuous effort to implement programs like these.

- Participation and commitment from all parties is required (managers, doctors, health workers, patients and their families).

- There is no universal solution: disease management programs should be designed according to the local cultural, political and socioeconomic scenario.
Thanks

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Paulo Borem, MD
Consultant

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