Technologie allein ist nicht genug – Faktoren für eine erfolgreiche Markteinführung
Technology is not enough!
New roles for patients & payers

PATIENTS’ ROLE

Active

Patients Rule!
- convenience, quality of life, DTC

Observe

Empowered Managed Care
- individualized, interactive health & patient management

Manage

Payers Rule!
- pharmacoeconomics, only cost matter

Passive

Nobody Cares
- traditional marketing, me-too products

PAYERS’ ROLE

“Empowered Managed Care” is the new paradigm of healthcare
Target groups and value propositions

**Hospitals:** mobile patient monitoring of early discharged patients in complete safety to reduce costs and comply with cost cutting

**Homocare / Elderly Care:** mobile and in-home patient monitoring to increase patients' quality-of-life and piece-of-mind. Reduction of care costs and formal operational burdens for care companies

**Pharmaceutical Industry:** mobile clinical trials (fast and high-quality clinical data for shorter time-to-market and safer medicine) and direct-to-patient communication

**Public Healthcare:** mobile disease management (e.g. less disease related costs and better quality-of-life for chronic disease patients)
Savings through disease management
- Asthma (I)

- The Asthma case: potential yearly **net** savings/patient in Germany amount to € 600 - € 1800 (10-30%)
Savings through disease management

Asthma (II)

- The Asthma case: potential yearly net savings of €24-72 mil for the German healthcare system (based on 1% acceptance)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Prevalence</th>
<th>1% Acceptance</th>
<th>3% Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>5,000,000</td>
<td>150,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Stroke</td>
<td>1,500,000</td>
<td>45,000</td>
<td>15,000</td>
</tr>
<tr>
<td>Asthma</td>
<td>4,000,000</td>
<td>120,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Hypertension</td>
<td>17,600,000</td>
<td>528,000</td>
<td>176,000</td>
</tr>
<tr>
<td>CAD</td>
<td>1,500,000</td>
<td>45,000</td>
<td>15,000</td>
</tr>
<tr>
<td><strong>Total potential users</strong></td>
<td><strong>888,000</strong></td>
<td><strong>296,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

* Estimated acceptance rates for mobile patient management programs
Mobile applications help hospitals to lower care costs

- Hospitals in Germany can save up to €1.5 bn per year through early discharge of patients made possible by mobile monitoring services

<table>
<thead>
<tr>
<th>Early discharged hospital patients using mobile services (20% of total):</th>
<th>Average costs for one hospital day:</th>
<th>Average number of hospital days saved through early discharge:</th>
<th>Total yearly cost savings through early discharge:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.3 m</td>
<td>€ 150</td>
<td>3 days</td>
<td>€ 1.5 bn</td>
</tr>
</tbody>
</table>

Source: GesundheitScout 24 GmbH and Bayerisches Rotes Kreuz
Mobile applications shorten clinical trial time

- The pharma industry loses on average $1 mil for each day a new pharmaceutical product is not yet on the market

<table>
<thead>
<tr>
<th>Traditional study (weeks)</th>
<th>CRF Logist.</th>
<th>Selection Study Center &amp; Training Doctors</th>
<th>Recruiting</th>
<th>Observation Time</th>
<th>Data Capture Complete</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td>Mobile Internet = study (weeks)</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>23</td>
</tr>
</tbody>
</table>

Difference: 8 weeks

Source: BMZ (CRO), Munich
Lessons learned (1)
Where are the benefits of mobile monitoring?

### Requirements for a value-added patient management system

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Existing Solutions</th>
<th>Mobile Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tracking of personal data</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Convenient handling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatization</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Ease of use</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Mobility</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Access to technology</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Personal care</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Feedback and interactivity</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>
Lessons learned (2) – Processes

1st line support

2nd line support

Solution Provider

Integration Implementation

Mobile Healthcare Solution

Hospitals

Doctor

Medical Call Center / Service

Management Monitoring

Patient

Mobile Network Operators

• Rates
• Network service
Lessons learned (3)
Benefits for the value chain

Doctor

Ericsson

Health Service Provider

Mobile Operator

10% Licence Fee

30% Licence Fee

30% Service Fee

30% Traffic Fee

Doctor (Patient Management Program)

Technology / Solution Provider

Health Service Provider

Mobile Operator (= 100% of Connection Fee)

70% Yearly Licence & Service Fee

30% Yearly Mobile Data Traffic Fee
Lessons learned (4)
An integrated solution approach

- Packaged offer has to contain solutions for both pillars of empowered managed care

Empowered Managed Care

**Mobile Patient Monitoring**
- Individualized mobile care and monitoring leads to the most cost-effective therapies and increases quality-of-life

**Healthcare Networks**
- Primary care information systems enable effective management of resources and outcomes
Primary Healthcare Information System

- Comprehensive integration solution for wide range of healthcare provisioning environments
- Comprises following products
  - Electronic Patient Register
  - Health Resources Register
  - Electronic Healthcare Record
  - Healthcare Agent
  - HC Portal

HL7v3 & CEN ENV 13606 compliant!
Goal: Mobile Health Portal - Portfolio of services for Disease Management

**Medicine**
- Doctors
- Emergency
- Pharmacies (all LBS-enabled)
- Medicaments

**Fitness**
- Workouts
- Body Mass Index
- Diets
- Recipe-Database
- Anti-Smoking

**Pollen & Weather**
- Forecasts
- Health Weather
- Health Alerts (Pollen, Asthma)

**Tools**
- Drug Reminder
- Self Tests
- Cholesterol-Calc
- Calories-Calc
- Forum
- Body Monitoring

**My Health**
- My Doctors
- My Medicaments
- My Pharmacies
- Information Services (SMS/ MMS)
- Asthma Diary
- Diet Coach
- Personal Trainer
- Anti-Smoking Coach
- My Forum