Telemedicine in Switzerland

Dr. Andy Fischer, CEO
Challenges in the Healthcare System
Patient needs

- Mobile access to medical care (e.g. via smart phone)
- Expert, comprehensive care around the clock
- Rapid diagnoses and efficient solutions
- Increased need for “at-home treatment”
- Guidance through complex healthcare system
Demographic structural changes

- “Baby Boomers” reach retirement age
- Generation gap increases (finance, resources)
- Increased demand (population, morbidity, life)
- Decreasing resources (finance, human resources)
- Increased demand for mobility (generation “Smartphone”)
Unrestrained cost increases in Swiss healthcare

- 8-9% increases in costs
- Mainly out-patient and hospital service costs
- Increase in premiums of 3-5%, especially for alternative insurance models
- One in ten Swiss is dependent on the healthcare sector
Highly fragmented and complex healthcare service

- 7 examinations/year at 4 different service providers
- Onward referral rate of up to 80% for basic healthcare providers
- Repeated examinations lead to costs of ~CHF 5 billion
- Proven link between the number of involved service providers and development of costs (for the same diseases)
Highlighted care problems in basic healthcare sector

- Increasing feminization
- Training bottle-necks
- Decreasing immigration of high potentials
Implementation of eHealth architecture

- Federal funding of eHealth architecture (politically and financially)
- Large companies invest in national collaboration infrastructure (Swisscom, Post)
- Electronic collaboration systems are increasingly available as a key tool for integrated out-patient healthcare services
Summary: development of the healthcare market Switzerland

- The demographic changes are leading to a massive increase in “sick people” and thus to an **increased demand** for medical services
- The “relative” lack of resources makes **security of care** a competitive advantage
- The financing problem forces the healthcare players to **increase efficiency**
- New technologies increasingly allow **collaboration and automation**

**Conclusion:** The growth of **integrated healthcare models** which are attractive also for sicker patients (**patient satisfaction**), demonstrate effective management (**cost effectiveness**) and guarantee security of care (**national coverage**).
Transformation of Business Models in Medicine
Yesterday: decentralized, locality dependent 1:1 healthcare
Today: centralized, locality independent 1:1 healthcare
Tomorrow: decentralized, automated 1:n healthcare
Medgate – Company Profile
Target: integrated healthcare Switzerland

Medgate is the leading provider of integrated healthcare services in Switzerland
## Business units

<table>
<thead>
<tr>
<th>Business Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medgate Telemedicine Center (MTC)</td>
<td>• Telemedical consultations 24/7</td>
</tr>
<tr>
<td>Medgate Health Centers (MHC)</td>
<td>• Medical centers for out-patient care</td>
</tr>
<tr>
<td>Medgate Partner Network (MPN)</td>
<td>• Foundation for the promotion of networking of independent service providers</td>
</tr>
<tr>
<td>Medgate International (MIN)</td>
<td>• Franchising of telemedical services</td>
</tr>
</tbody>
</table>
Medgate today

- Operational infrastructure in Switzerland
  - Telemedicine Centers in Basel and Zurich
  - Health Centers in Zurich and Solothurn
  - Partner Network with 1,200 Specialists

- Operational infrastructure internationally
  - Telemedicine Centers in Abu Dhabi (UAE), Sydney (Australia) and Manila (Philippines Q1/2016)

- 300 employees
  - Physicians, Telemedical Assistants, ICT Specialists, Administration

- up to 4,500 Teleconsultations a day

- up to 2.5 million patient records
International engagement

- ISfTeH: International Society for Telemedicine and eHealth
- President: Andy Fischer
- Facilitates the international dissemination of knowledge and experience in Telemedicine and eHealth and provides access to recognized experts in the field worldwide
  - Promotion and support of Telemedicine/eHealth activities worldwide
  - Supporting developing countries in the field of Telemedicine and eHealth
  - Non-governmental and not-for-profit society with close ties to WHO and ITU
Medgate Telemedicine Center
Medgate Telemedicine Center (MTC)

- Broad spectrum of medical specialties

- **Every third person** in Switzerland has access to teleconsultations from Medgate

- **Over 4,300 patient contacts** a day at peak times

- Extensive knowledge and experience from **5 million teleconsultations** since 2000

- Operating from Basel, Zurich, and **50 home offices**
Telemedical services

- **Teleconsultations:**
  - **Communication channels**: telephone, internet, video
  - **Telediagnostics**: diagnosis of images (digital photos), telemonitoring (BP, sugar level, etc.)
  - **Teletherapy**: prescription of drugs, sick leave certificates

- **Access for patients:**
  - Telemedical consultations **24/7, from anywhere**
  - **Languages**: German, French, English, Italian, (Spanish)
Mechanics of the Telemedicine Center

- **Call**
  - Reception/Triage
    - CCA
    - TMA
    - Telecare possible (80%)
      - Telediagnosics
        - Medgate-doctor (Case history, Telecardiology, Image-based diagnosis, etc.)
          - Telecare/Teletherapy (Prescriptions, etc.) (75%)
    - Telecare impossible (20%)
      - Physical consultation
        - General practitioner, Specialist, Hospital, etc. (25%)

22 | 12.05.2016
Online management with the 360°Healthmanager
Diagnostics with telebiometric systems
Business models

Free-access model:
- Free offering of teleconsultations
  - No obligations for the patients
- Customers: insurance companies, government, private companies, individuals
- Revenue model:
  - Access fee (per member per year)
  - Teleconsultation fee (per teleconsultation)

Gatekeeping model:
- Insurance model with premium rebate
  - Mandatory teleconsultations for all medical problems
  - Patient has to follow the recommendations of the Medgate physician
- Customers: insurance companies
- Revenue model:
  - Access fee (per member per year)
  - Managed care fee (per member per year)
  - Teleconsultation fee (per teleconsultation)
Results
Teleconsultations
(CAGR 38.5%)
Medgate patient structure, percent by age

Area = age distribution of the Swiss population 2011 (Federal Office for Statistics)
Distribution of calls by day (per product)
Distribution of calls by hour (per product)

- Demand Management
- Compliance System
- Integrated Telemedical Care (ITC)
## Main “Key Performance Indicators” at a glance
(Medgate 2015)

<table>
<thead>
<tr>
<th>KPI</th>
<th>Measurement</th>
<th>2015 (min-max)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of consultations p.a.</td>
<td>approx. 75,000</td>
<td></td>
</tr>
<tr>
<td>Teleconsultations</td>
<td>approx. 750,000</td>
<td></td>
</tr>
<tr>
<td>Physical consultations MHC</td>
<td>approx. 25,000</td>
<td></td>
</tr>
<tr>
<td>360° Healthmanager Downloads</td>
<td>23,261</td>
<td></td>
</tr>
<tr>
<td>Telecare rate</td>
<td>42-49%</td>
<td></td>
</tr>
<tr>
<td>MPN specialist referrals</td>
<td>20-36%</td>
<td></td>
</tr>
<tr>
<td>netCare pharmacy triage</td>
<td>6,350</td>
<td></td>
</tr>
<tr>
<td>Unexpected outcome rate</td>
<td>&lt; 10/100,000</td>
<td></td>
</tr>
<tr>
<td>Malpractice rate</td>
<td>&lt; 0.02/100,000</td>
<td></td>
</tr>
<tr>
<td>Productivity</td>
<td>Consultations per hour</td>
<td>4.3 MTC/3.8 MHC</td>
</tr>
<tr>
<td>Cost effectiveness</td>
<td>Reduction of health costs</td>
<td>10-17%</td>
</tr>
<tr>
<td>Patient satisfaction</td>
<td>Net promoter score (NPS)</td>
<td>42%</td>
</tr>
</tbody>
</table>
Thank you for your attention!