A Brief Overview: The Danish Health Portal
www.sundhed.dk
Denmark

5.5 mio inhabitants

43,094 km² / 16,639² sq mi
63 Public hospitals – 21,000 Beds
10 Private hospitals - 150 Beds

3,400 GPs (2,000 clinics)
  804 Private specialists
  245 Part time private specialists
  331 Pharmacies
2,700 Dentists (1,650 clinics)
1,793 Physiotherapist (550 clinics)
  225 Chiropractors
  546 Psychologists

5 Regions
98 Municipalities
  1 Government Health Insurance
  Plus Private Health Insurances
Denmark and Health Care: In a Glimse

- 95% with access to the internet
- 5.8 mio mobile phones
- 25-60 public hospitals
- Many small private clinics/hospitals
- 3,500 GPs in 2,000 clinics
- 811 private specialist offices + 205 parttime
- 250 pharmacies
- 2,700 dentists in 1,650 clinics
- 1,829 physiotherapists in 580 clinics
- 224 chiropractors
- 726 Psychologists

5 regions
98 municipalities
Pathway for patients

- 90% of problems handled by GP, 10% are referred to specialist or hospital
- Specialized treatment only with reference (except ears/eyes)
- Patient payment for
  - Medicine (out of hospital)
  - Dental service (av. 80%)
  - Physiology training and the like
The Overall Goals of www.sundhed.dk

- To facilitate digital communication patients - the health care service
- To act as a communication tool for the stakeholders of the health care service
- To give citizens and/or patients an overview of the organization of the health care service and information related to the use of the health care service
- To support the patient in attending to his own health and his health care situation
- To put expert information at the disposal of health care professionals
Target groups? Trustworthyness?

**Primary Target Groups:**
- Citizens / Patients
- Health professionals (especially the GP)

*On the basis of trustworthy unbiased information*
- Evidense based
- No bias from advertisements
Budget

- **Build-up budget (2003-2004):** 15 million euro
- **Annual budget:** 4,5 million euro
  - IT operations (3 million euro)
  - Administration and staff (1,5 million euro)
- **All further development: the partners demands and financing – the so-called JUKE-BOX model**
  - Pro: A business case of some kind necessary
  - Con: New ideas may have difficulties
Organization of sundhed.dk

Owners/Board (Politicians)

Project Management Group

Reference Group 15 members (Health Professionals)

Managing Director

Secretariat

Computer Contractors

700 editors from Health Authorities
Features: *Health professionals*

**Information for GP (log on)**
- Patient appointment calendar
- Web access to laboratory data
- ICPC search of diagnoses from GP’s electronic healthcare program (Linkportal)

**All Health care professionals (log on)**
- eMedicine records
- Electronic patient records etc (pilot)
- Waiting list information from hospitals
- Secure e-mail communication
- Cochrane library

**Regional and national information**
- Contact information (authorities, departments, health personnel)
- Information on referral principles to hospitals/regions
- Preventive medicine
- Health laws and regulations
- Laboratories and consultants
Features: Citizen/Patients

Directory of names and addresses

- Contact information
- E-services (booking, prescription renewal, consultation) (log on)
- Health appointment calendar
- Comparison of prices, quality and accessibility
- E-commerce (pharmacies) (log on)

Information about prevention and treatment

- Contact information
- Medical information (eg. information about treatments)
- Waiting list information from hospitals
- Preventive medicine
- Health laws and regulations

Access to own health data (log on)

- Cross-sectorial personal electronic medicine profile
- Patients’ medical history (since 1977)
- Shared care: Pregnancy Records
- Online Donor Registration and access to own data
Danish Public Health Portal for Citizens

sundhed.dk

Emne

- Sygdomme
- Sundhed og forebyggelse
- Behandling
- Lægemidler
- Hvad siger loven?
- Tal og fakta
- Sundhedsvæsenet
- Selvbetjening for borgere
- Nyheder

Sundhedsvæsenet

- Regioner, sygehuse og kommuner

Influenza A (H1N1)

Find information om influenza A (H1N1) i opslagsværker og på de forskellige myndigheders hjemmesider.

Seneste redaktionelle revidering: 25. september 2009

Borger

Find information og tjenester på sundhed.dk som borgere, pårørende eller patient.

Særligt for borgere

Sundhedsfaglig

Find sundhedsfaglige informationer og værktøjer til brug i arbejdet.

Særligt for sundhedsfaglige

Nyt sundhed.dk!

Vejviser

Sundhedsområde:
Alle områder

Region:
Alle regioner

Navn:

Sag

Find nærmeste
The ehealth approach

Higher healthcare costs
Fewer physicians
More patients
Higher healthcare costs

Optimize work routines
- eBooking
- eConsultation
- SMS and eMail notification
- Healthcare Yellow pages
- Support choice of healthcare organization
- eRenewal of medicine prescription
- Update own information
- eApply

Use the patients capacity
- Treatment information
- Shared Care
- Track own medical history
- Access to national EHR
- Track own medicine use
- Self measuring
- Targets & Risk profiles
- Patient forums

The right treatment
- Decision support
- Medical history
- Access to national EHR
- Track medicine use
- Adverse drug reaction
- CAVE Registration
- Access lab results

Prevent illness
- Disease Information
- Medicine information
- Wellness programs

Take action in time
- Track medicine use
- Test yourself

The healthcare challenge

Co-operation
- eReferrals / eDischarges
- ePrescription
- National EHR
- eLabtest / eRadiology
- National Quality db
- DRG
- Work on same HR

Security, privacy and confidentiality
Support choice of healthcare organization

The healthcare challenge

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Fewer healthcare costs
- Waiting lists
- Optimize work routines
- Take action in time

Waiting lists

Increased patient satisfaction
- Decision support
- Medical history
- Access to national EHR
- Cross drug reaction

Waiting lists

Support choice of healthcare organization
- National EHR
- eLabtest/ eRadiology
- National Quality db
- DRG
- Work on same HR
- Use the patients capacity
- Co-operation

Patient forums
- eReferrals/ eDischarges
- ePrescription
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The ehealth approach

Disease Information

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Healthcare costs
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The healthcare challenge

Security, privacy and confidentiality
**Track own Medicine use**

I medicinprofilen finder du oplysninger om de lægemidler, du har købt på recept på apoteket, og oplysninger om dine medicintilskud. Oplysningerne går to år tilbage fra den offentlige sygesikring og kommunen.

**Bemærk:** Alle oplyste beløb på disse sider er angivet uden tilskud fra den offentlige sygesikring og kommunen.

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**Healthcare costs**
- Fewer physicians
- Higher healthcare costs
- More patients

**The healthcare challenge**

**Prevent illness**
- Disease Information
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- Wellness programs

**Take action in time**
- Access to national EHR
- Track medicine use
- Adverse drug reaction
- CAVE Registration
- Access lab results

**Re patients**

**Self measuring**
- Targets & Risk profiles
- Patient forums

**Self measuring**
- Take action in time
- Security, privacy and confidentiality

**Shared care**
- Decision support
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### Lab results

#### Metabolism
- **Cholesterol**: 6.5, 6.6, 6.6, 6.6, 6.6
- **HDL-Cholesterol**: 1.08, 1.24, 1.24, 1.24
- **LDL-Cholesterol**: 4.5, 4.4, 4.4
- **Triglyceride**: 2.1, 2.24, 1.17, 1.17

#### Fysielogske undersøgelser
- **EKG12**: 1 / 1

**Resultater med rød tekst angiver, at tallet vurderes være kritisk i forhold til referenceområde.**

#### Kommentarer
- **26. juli 2002 - Metabolism - Cholesterol**:P
- **Targets & Risk profiles**
- **Patient forums**

**The right treatment**
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The History of the Danish eHealth experience

The Building blocks – some samples

- Basic communication
- Shared care and patient involvement
- Self service

- National infrastructure
  - The HealthNet
  - National EHR
  - ePrescription Server, Medicine server and the Medicine profile
  - National Quality databases
  - Security, privacy and consent management
  - eHealth Portal
The eHealth Portal just a little piece in the puzzle

Since 2003

Since 1994

Other Interest groups
Scientists,
Call center Doctors,
Pharmacies, Dentists,
Chiropractors,
Patient Interest groups etc.

Other Physicians

Citizens

Health Net

GP’s

Physicians in a Hospital

Homecare

Specialist
The History of the Danish eHealth experience

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Business Case – Basic communication

- 50 minutes saved per day in GP practice
- Information ready when needed
- No retyping, quality
- Telephone call to hospitals reduced with 66%
- Savings e-referrals: 3.5 mill. Euro
- Savings e-lab. requisitions: 2.0 mill. Euro
- 4.0 mill. messages each month
- Compared to mail…
  2,3 € saved per message…+100 mill. € per year?
An eHealth Portal is only a very small part of the eHealth puzzle... but it is the piece that brings it all together - for the first time!

This means it needs to handle bringing a huge amount of **organizations and people**
together and get them working against the same target:

- National and Regional Health Authorities,
- Government and Private healthcare sector,
- Primary and Secondary healthcare sector,
- IT Vendors, competitors and partners,
- Citizens and Patients

and the Press…

Each with their own AGENDA!!
An eHealth Portal is only a very small part of the eHealth puzzle... but it is the piece that brings it all together - for the first time!

This means it needs to handle bringing a huge amount of technology and standards together and get them working smoothly:

- National Authorization concept
- Communication standards
- Classifications and thesauruses
- Brand new and legacy applications
- Integration concepts: Faming, WSRP, SSO, WS
- Hosting own and 3th party applications…
Thank You for Your Attention!