Denmark – On the Road to a National eCare Continuum

Niels Rossing

www.medcom.dk

The GOAL

Healthcare provision without IT is unthinkable

- But remember:

eHealth is only a tool

the **goal** is
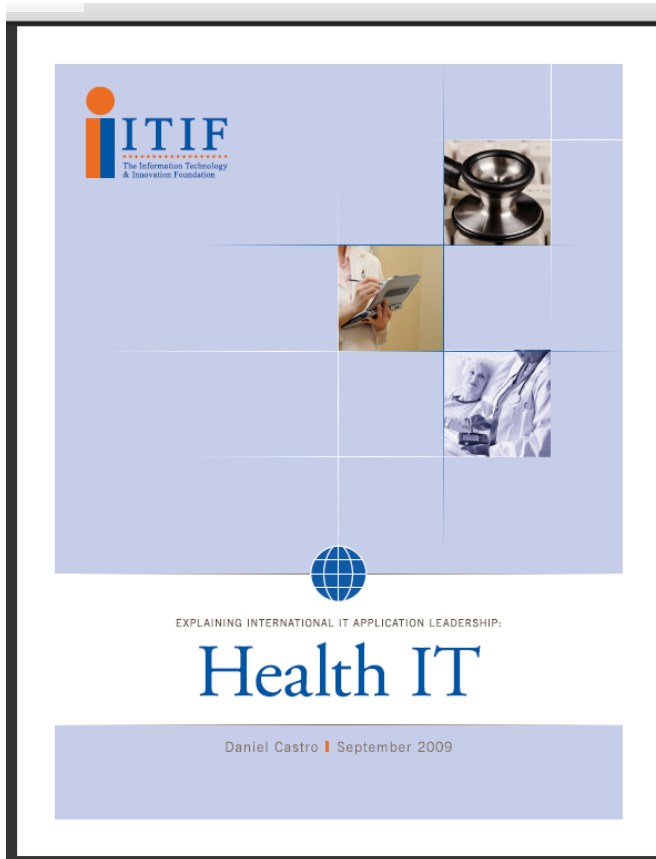
HEALTH

Rossing: eHealth Europe 2011

More than the Electronic Patient Record

- Lab, Image, Clinical, Admin.,Billing etc,

- Decision support

- Telemedicine (EU project. 'Renewing Health')

- Health Portals

- Info and Support directly to the patient or frail citizen at home (Ambient Assisted Living)

- Mobile smartphone support (mHealth – EU project)

Nordic Countries Lead the Way

EXPLAINING INTERNATIONAL IT APPLICATION LEADERSHIP:

Health IT

Daniel Castro | September 2009

ITIF sept. 2009:

*"Our analysis indicate that three countries—**Denmark**, Finland, and Sweden—are **definitively ahead** of the United States and most other countries **in moving forward with their health IT systems**."*

The Information Technology and Innovation Foundation (ITIF) is a Washington, D.C.-based think tank with the goal of improving quality of life

Danish Health Sector

5.5 mil. Inhabitants
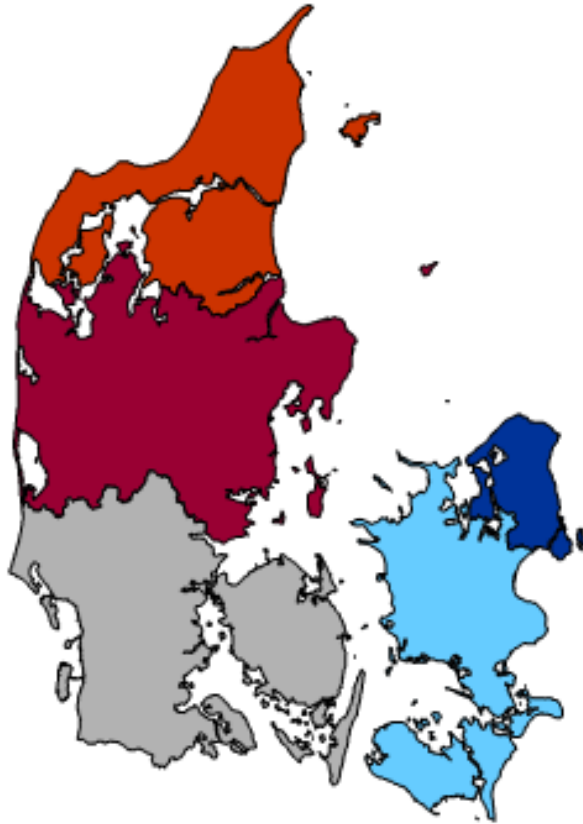
5 Regions: Health Care
98 Municipalities: Home care

- 60 Public hospitals
- 10 Private hospitals
- 2000 GP clinics
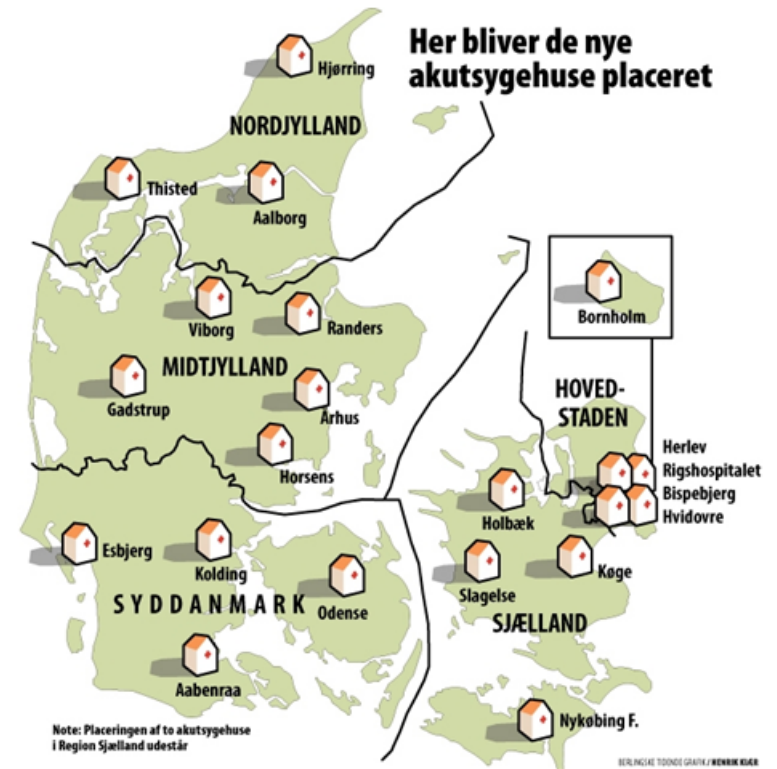- 1100 Specialists
- 330 Pharmacies

Tax paid
Free of charge

Changing Danish Health Sector
In 2020 we would have..

- 21 large acute hospitals – 5 new
- Elective surgery on specialty hospitals
- Chronically sick in the primary sector

Her bliver de nye akutsygehuse placeret

NORDJYLLAND
- Hjørring
- Thisted
- Aalborg

MIDTJYLLAND
- Viborg
- Randers
- Gadstrup
- Århus
- Horsens

SYDDANMARK
- Esbjerg
- Kolding
- Odense
- Aabenraa

HOVED-STADEN
- Bornholm
- Herlev
- Rigshospitalet
- Bispebjerg
- Hvidovre

SJÆLLAND
- Holbæk
- Køge
- Slagelse
- Nykøbing F.

Note: Placeringen af to akutsygehuse i Region Sjælland udestår

BERLINGSKE TIDENDE GRAFIK / **HENRIK KIÆR**

Cornerstones for an e-Care Continuum

- **Infrastructure** and **Messages** between sectors
- **Interoperability** of systems
- A **Platform** to capture and present data
  - New reference architecture involving Continua under way.
- Retrieving the "**hidden**" **data**
- Getting close or into the patient – **Tele**
- Structure and data for **Chronic Care**
- **Coordination and Governance**

Cooperation in eHealth

- **MedCom** - 1994
  - Connecting Health
- **Sundhed.dk** - 2003
  - The Danish Health Portal
- **NSI** – National Health IT - 2008
  - Coordinating eHealth (MOH)
- **RSI** – Umbrella over regions
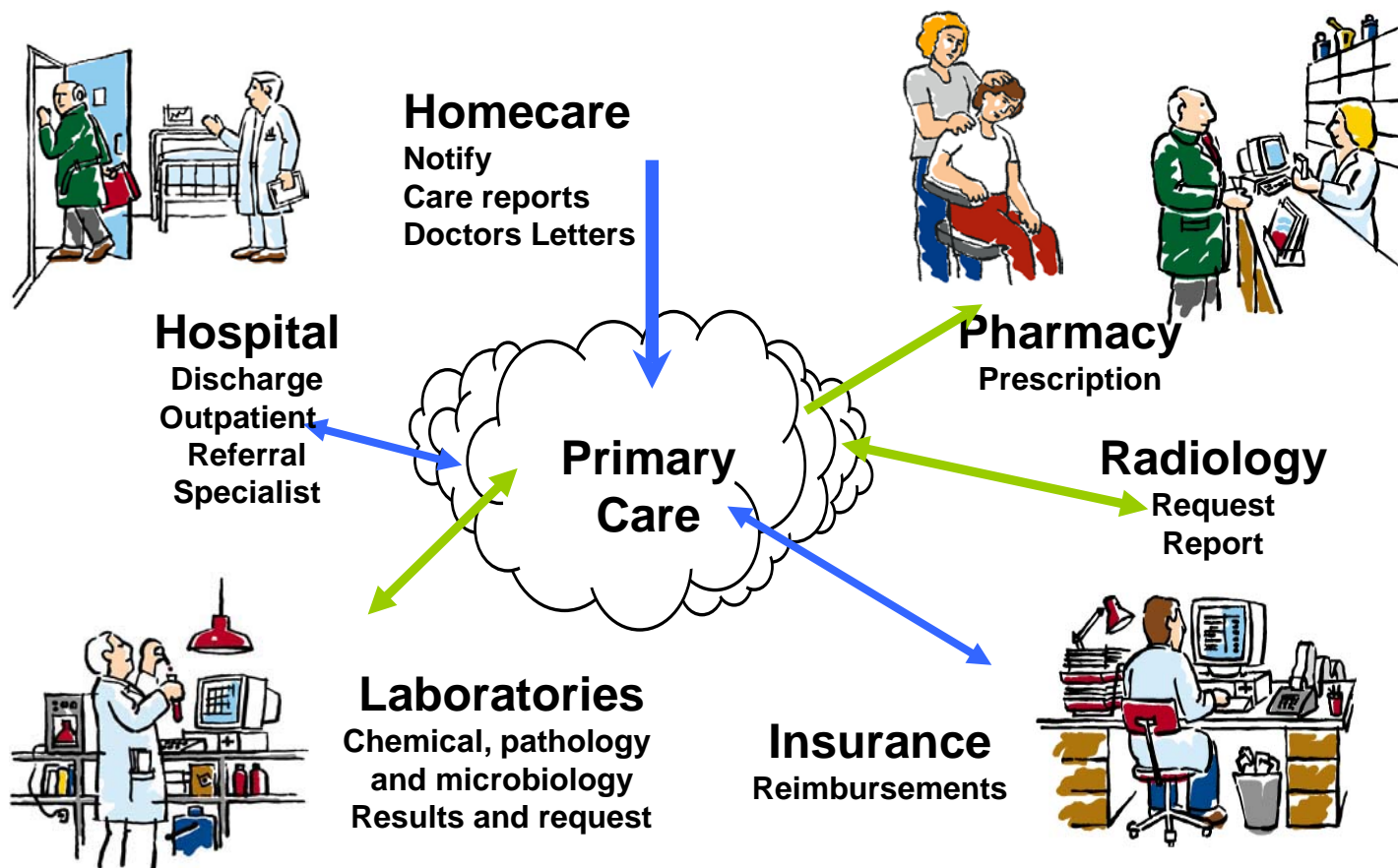- All governed by MOH, 5 Regions and 98 Municipalities

What is Medcom?

*Medcom is a national non-profit project organization developing, testing and disseminating **electronic communication** with primary care in focus via national healthcare **communication standards and profiles**.*

And this means….

Today:
Connected Health Sectors

eCommunication between sectors

- Electronic messages have to a large extent replaced handwritten messages between GPs and hospitals:

Type of message	% digital
Referrals from GPs to specialized treatment	81 pct.
Discharge letters from hospitals to GPs	99 pct.
Lab test orders and resultats between GPs and labs	99 pct.

medcom
www.medcom.dk

Example: Hospital Dischargeletters 2003- 10
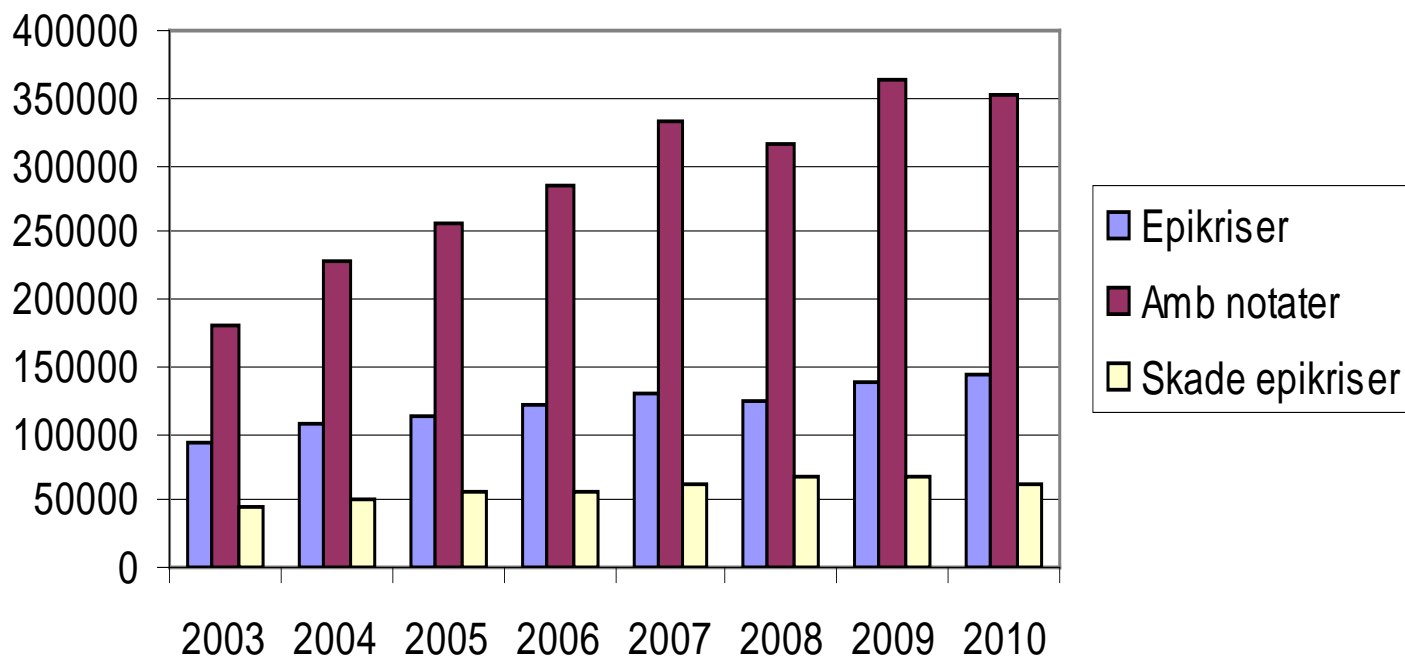
NSI – National eHealth

- National strategies and plans
- Standards
- Projects
  - epSOS
  - FMK –Shared Medication Rec.**Complete by end 2013**
  - NPI – Access to records, vaccination, radiology . **Still missing**
- Managing MoH IT-solutions

The Challenge of "Hidden" and still Missing Data

Two on-going Projects:

- Finding the data with
  - **a National Patient Index:**
    - Vaccinations
    - Radiology
    - (Lab data)
    - Complete Records
- Completing the Medication History with
  - **A Shared Medication Record (FMK)**

FMK – Shared Medication Data Base

Benefits

- Updated Medicine information – on-line
- Integrated in IT systems
- "automatic" logon
- Everybody working on same database
- Less medication errors

Getting close to or inside the Patient

Telecare – Telehealth – Home Monitoring

Many still not coordinated projects mainly in:

- Diabetes
- Cardiac failure
- COPD
- Anticoagulation
- Foot and leg ulcers
- Psychiatry

+Teleinterpretation

National Tele Action plan – Time Line

www.medcom.dk

Præsentation1 - Microsoft PowerPoint

Filer | Startside | Indsæt | Design | Overgange | Animationer | Diasshow | Gennemse | Vis

Bilag 1 Telemedicinsk handlingsplan.pdf - Adobe Reader

Filer | Rediger | Vis | Vindue | Hjælp

34 / 35   96,9%   Værktøjer   Underskriv   Kommentar

Bilag 1: Samlet tidsplan

Tabel 9

Tidsplan for enkeltinitiativerne i handlingsplanen

Initiativ	Navn	Startdato	Slutdato
Initiativ 1	Klinisk integreret hjemmemonitorering	1. april 2012	1. april 2014
Initiativ 2	Hjemmemonitorering af KOL-patienter i Region Nordjylland	1. juni 2011	1. december 2014
Initiativ 3	National implementering af telemedicinsk sårvurdering	1. september 2012	31. august 2015
Initiativ 4	Demonstration og udbredelse af telepsykiatri	1. oktober 2012	31. december 2014
Initiativ 5	Demonstration af internetpsykiatri	1. august 2012	31. oktober 2014

Dias 1 of 1

DA   15:51   01-12-2012

National telemedicine Action Plan - Finances

Bilag 2: Samlet oversigt over fordeling af finansiering og potentiale

Tabel 10

Oversigt over fordeling af handlingsplanens finansiering (ekskl. egenfinansiering) og potentiale

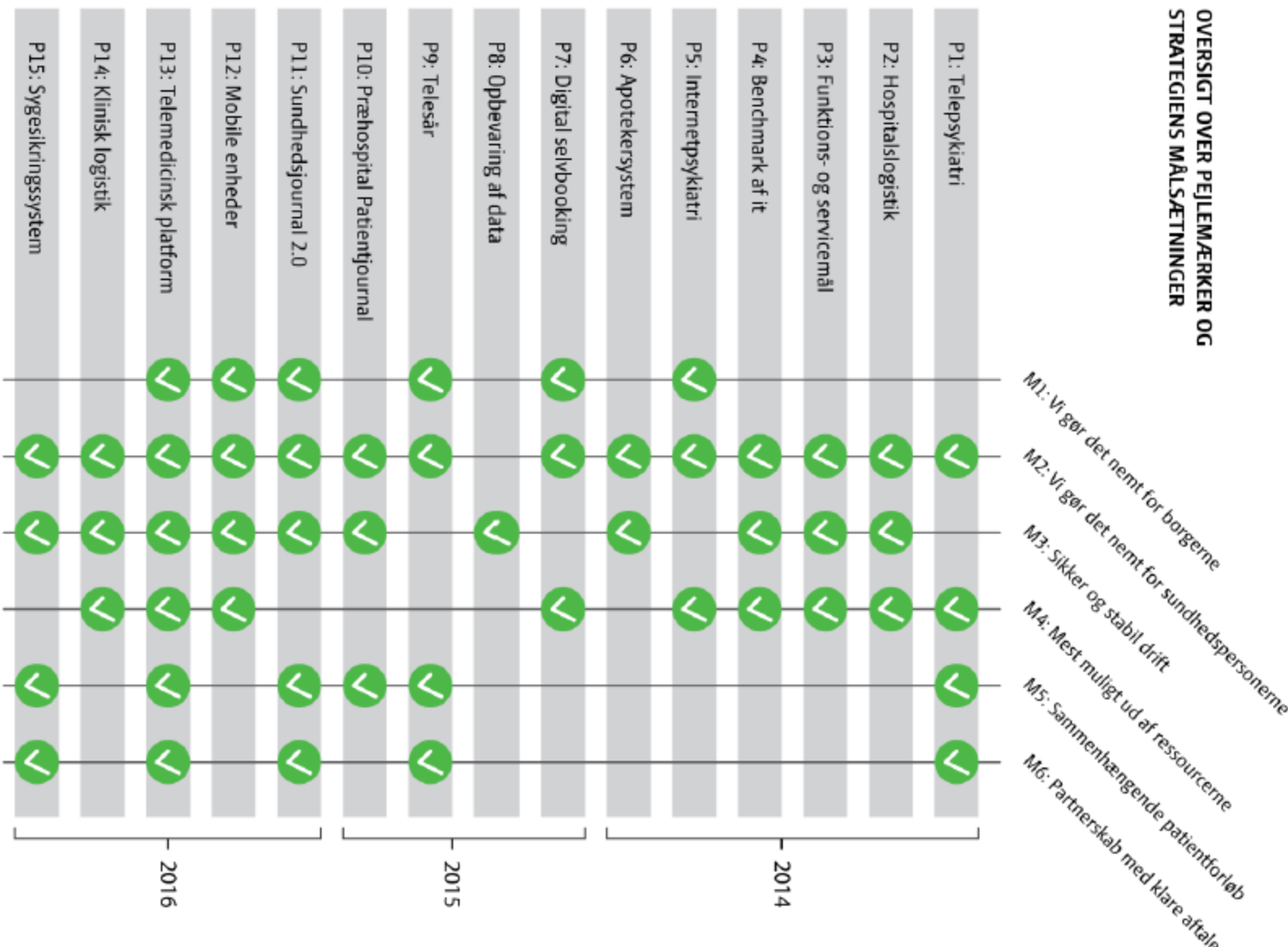| Initiativtitel	Projektejer	Finansieringsbidrag fra handlingsplanen, mio. kr. (samlet udgift i parentes)	Estimeret potentiale årligt potentiale efter indfasning
Klinisk integreret hjemmemonitorering	Region Hovedstaden/Midt	33,4 (82,7[21])	38 årsværk
Hjemmemonitorering af KOL-patienter i Region Nordjylland	Region Nordjylland	11,0 (53,4[22])	72 årsværk
Udbredelse af telemedicinsk sårbehandling	Medcom	30,0 (30,0[23])	Ca. 600 værk[24]/330 mio. kr.
Demonstration og udbredelse af telepsykiatri	Medcom	1,4 (1,4)	1 årsværk
Demonstration af internetpsykiatri	Region Syddanmark	5,0 (5,0)	4 årsværk

Cronic ulcer telemedicine treatment
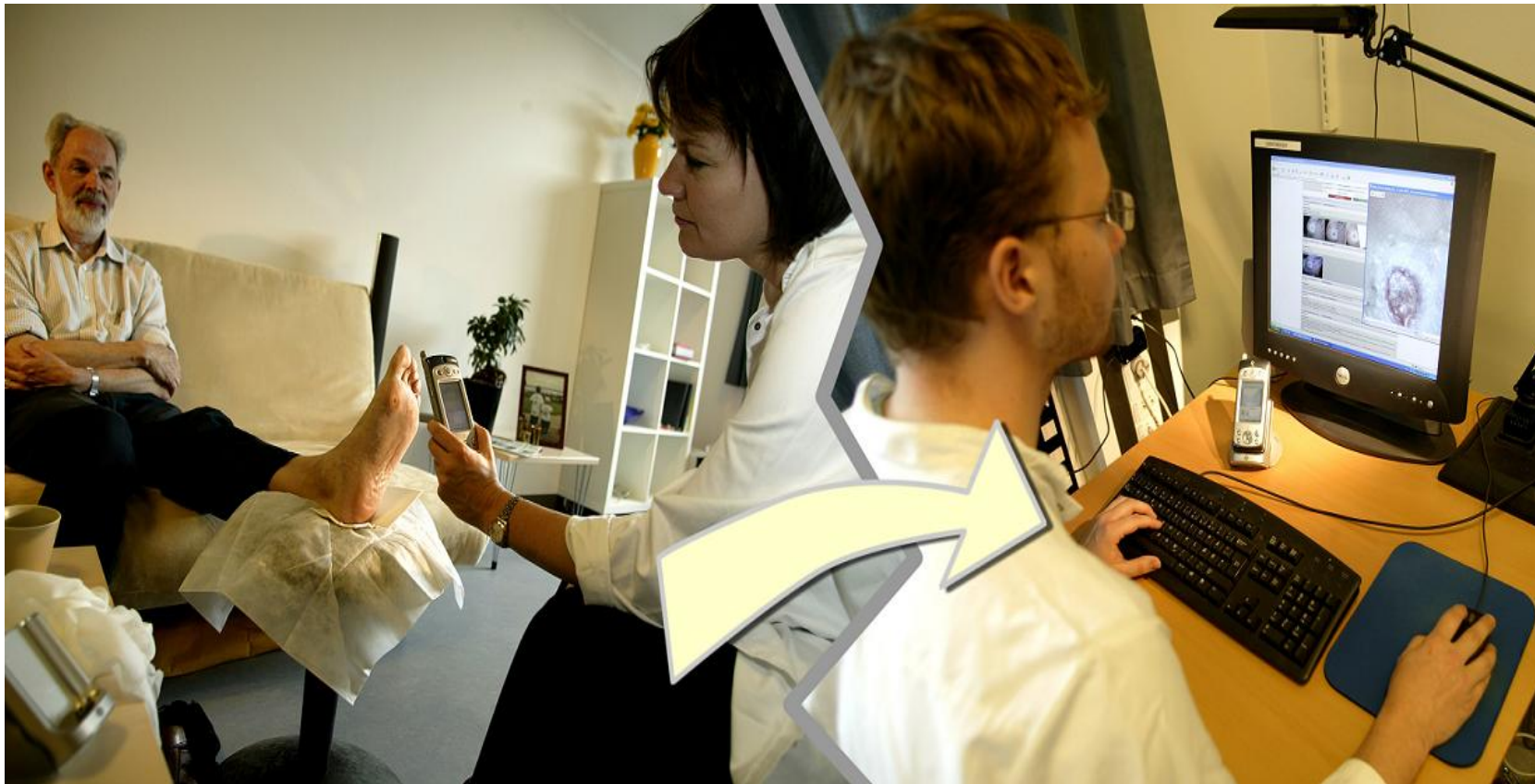
Tele Interpretation

OVERSIGT OVER PEJLEMÆRKER OG STRATEGIENS MÅLSÆTNINGER

Columns:
- P15: Sygesikringssystem
- P14: Klinisk logistik
- P13: Telemedicinsk platform
- P12: Mobile enheder
- P11: Sundhedsjournal 2.0
- P10: Præhospital Patientjournal
- P9: Telesår
- P8: Opbevaring af data
- P7: Digital selvbooking
- P6: Apotekersystem
- P5: Internetpsykiatri
- P4: Benchmark af it
- P3: Funktions- og servicemål
- P2: Hospitalslogistik
- P1: Telepsykiatri

Rows:
- M1: Vi gør det nemt for borgerne
- M2: Vi gør det nemt for sundhedspersonerne
- M3: Sikker og stabil drift
- M4: Mest muligt ud af ressourcerne
- M5: Sammenhængende patientforløb
- M6: Partnerskab med klare aftaler

Years: 2016, 2015, 2014

Figurforklaring: Her ser du en oversigt over pejlemærkerne og deres relation til de strategiske målsætninger. Fx fremgår det, at pejlemærket for Telepsykiatri bidrager til realiseringen af målsætning 2, 4, 5 og 6. På de følgende sider beskrives de enkelte pejlemærker nærmere.

Future! Chronic Care

- The GP is the Master
- Planned, seamless process between
- Primary Doctor (coordinator)
  - Makes stratification and plane
  - Refers to benefits from municipal and hospital
- Municipality
  - Rehabilitation and education
  - Coordinator for medical complex
- Hospital / Specialist
  - Outpatient Treatment offers
  - Advice to practice
  - Coordinator for social complex
- Patient
  - self-Monitoring
  - self Treatment

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  But ----

Many Chefs: Benefit and Risks

Benefit:

Avoiding:

– Big Bang Monolithic Failures

– Monopolies

Risks:

- Lack of governance
- Lack of Interoperability and common platform
- Many small failures
- Too small projects/trials to be conclusive
- Nobody to hold responsible

A Growing Market for Health IT

- **EU: From 16 to 18 Billion € in 2012**
  - **Health systems**
  - **Wireless systems**
  - **Mobile systems**
  - **Telemedicine and telehealth**
  - **Ambient Assisted Living**

What to do?

- Create Nordic eHealth Market
  - And sell it!
- Create Nordic interoperability
  - -and tell it!
- Revive Nordic eHealth cooperation!
  - A job for Finland?

End

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