Swedish Association of Local Authorities and Regions

Welcome to SALAR!

2017-08-31

Agenda

09:00–09:30	Coffee, welcome and introduction of agenda	Karina Tellinger McNeil, SALAR Helena Palm, SALAR
09:30–10:20	• Swedish healthcare and e-health (structure and organization) • SALAR and government action plan and Vision for e-health 2025 • Legislation	Patrik Sundström, SALAR
10:20–10:30	*Short break*	
10:30–11:20	• Services for patients and citizens • What can we offer our citizens in the coming years?	Sofie Zetterström and Maria Ekendahl, Inera
11:20–12:10	• EHR systems in Sweden today and plans for tomorrow • National e-health services (National patient overview, Referrals, Sick-notes) • National infrastructure for e-health	Mikael Johansson, Inera
12:10–13:00	*Lunch*	
13:00–13:30	Data driven management in Swedish healthcare (Vården i siffror and Öppna jämförelser)	Fredrik Westander and Adam Sandebring, SALAR
13:30–14:00	Personal health account (HälsaFörMig)	Carl Jarnling, Swedish eHealth Agency
14:00–15:00	Towards new digital solutions (EHRs etc.)	Annabeth Bergqvist, Stockholm: Ralph Harlid, Blekinge och Marie Häggström, FVIS
15:00–15:20	*Coffee break*	
15:20–16:30	• Health, social services and regional government reform in Finland • The UNA project • HUS Apotti project	Vesa Lipponen, Ministry of Finance; Erkki Kujansuu, Tampere University Hospital; Jyrki Soikkeli, HUS Apotti project
16:30–17:30	Moderated discussion/workshop	Karina Tellinger McNeil, SALAR Helena Palm, SALAR

Swedish Association of Local Authorities and Regions

In this file

What do we know about each other?

How familiar are you with Swedish eHealth (= what we do and what we plan)?

1 = Novis (nothing at all)

…

5 = Expert (know everything)

How familiar are we with Finnish eHealth (= what they do and what they plan)?

1 = Novis (nothing at all)

…

5 = Expert (know everything)

Services for patients and citizens

Sofie Zetterström, deputy CEO

Inera – basic facts

- Inera is a company owned by SALAR, the county councils and the local authorities
- The role of Inera is to coordinate the common development of digital services of the shareholders and provide them with national services, that is services for the citizens and for healthcare staff and staff in the municipalities, along with related infrastructure and architecture
- The company revenue is approximately 80 million euro a year

Until today more than 40 e-health services
- and around 30 projects of development

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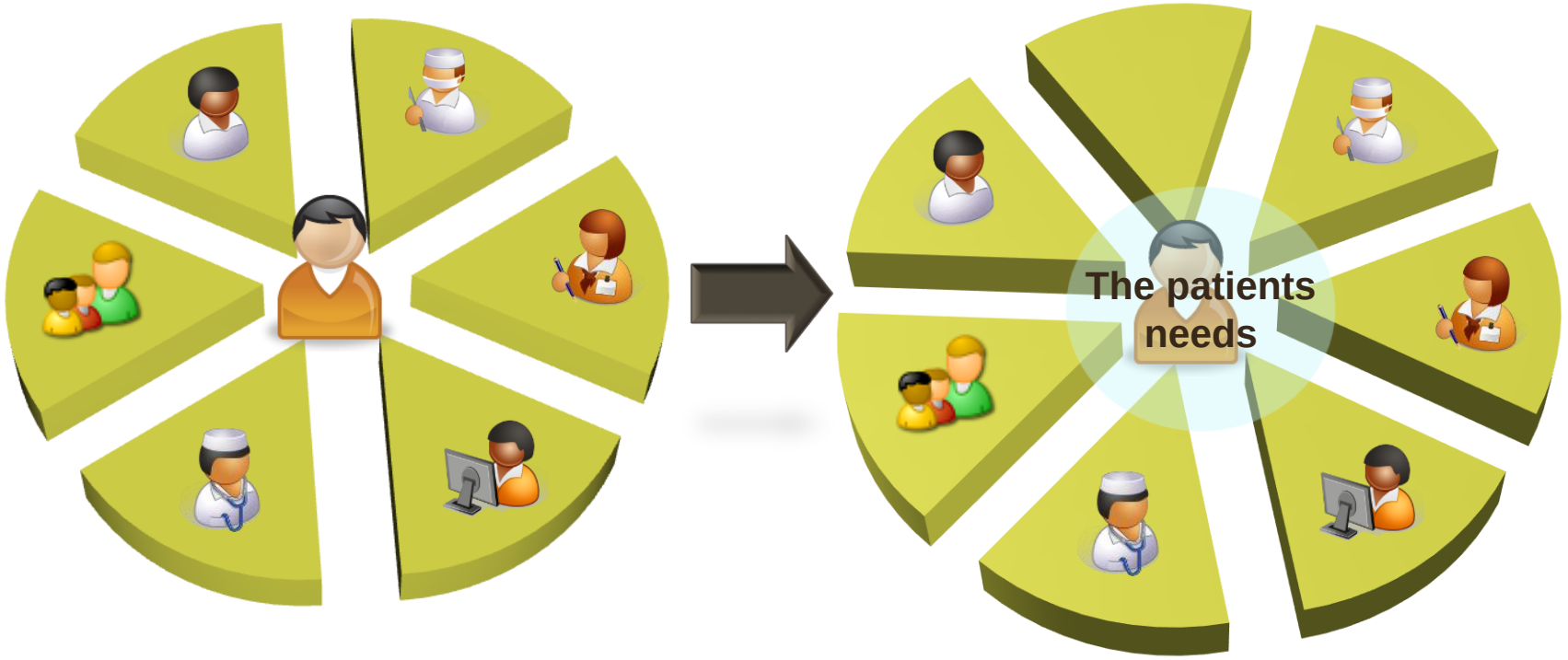
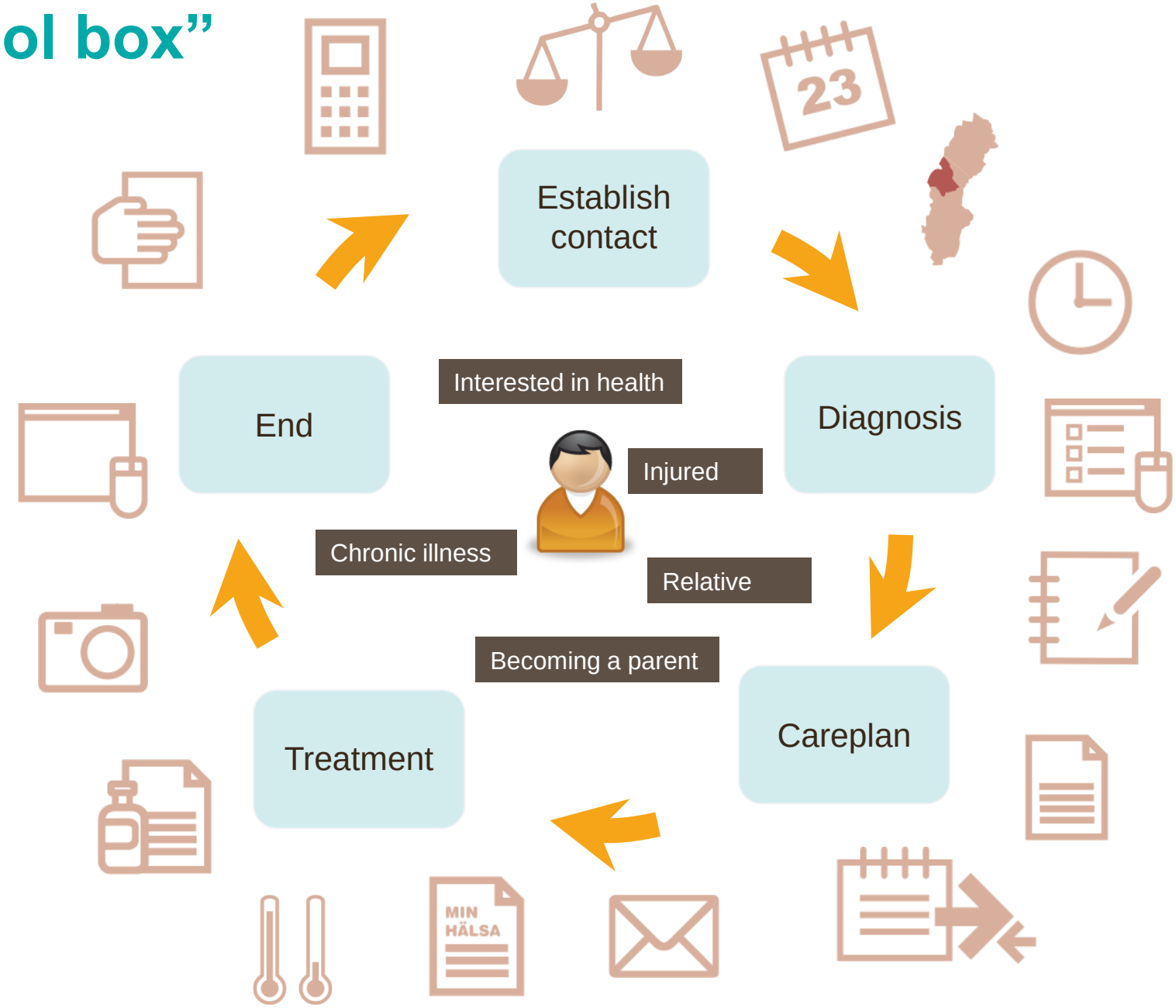
Our goal: a shift in perspective



The patient at the center

The patient in the team

A “tool box”



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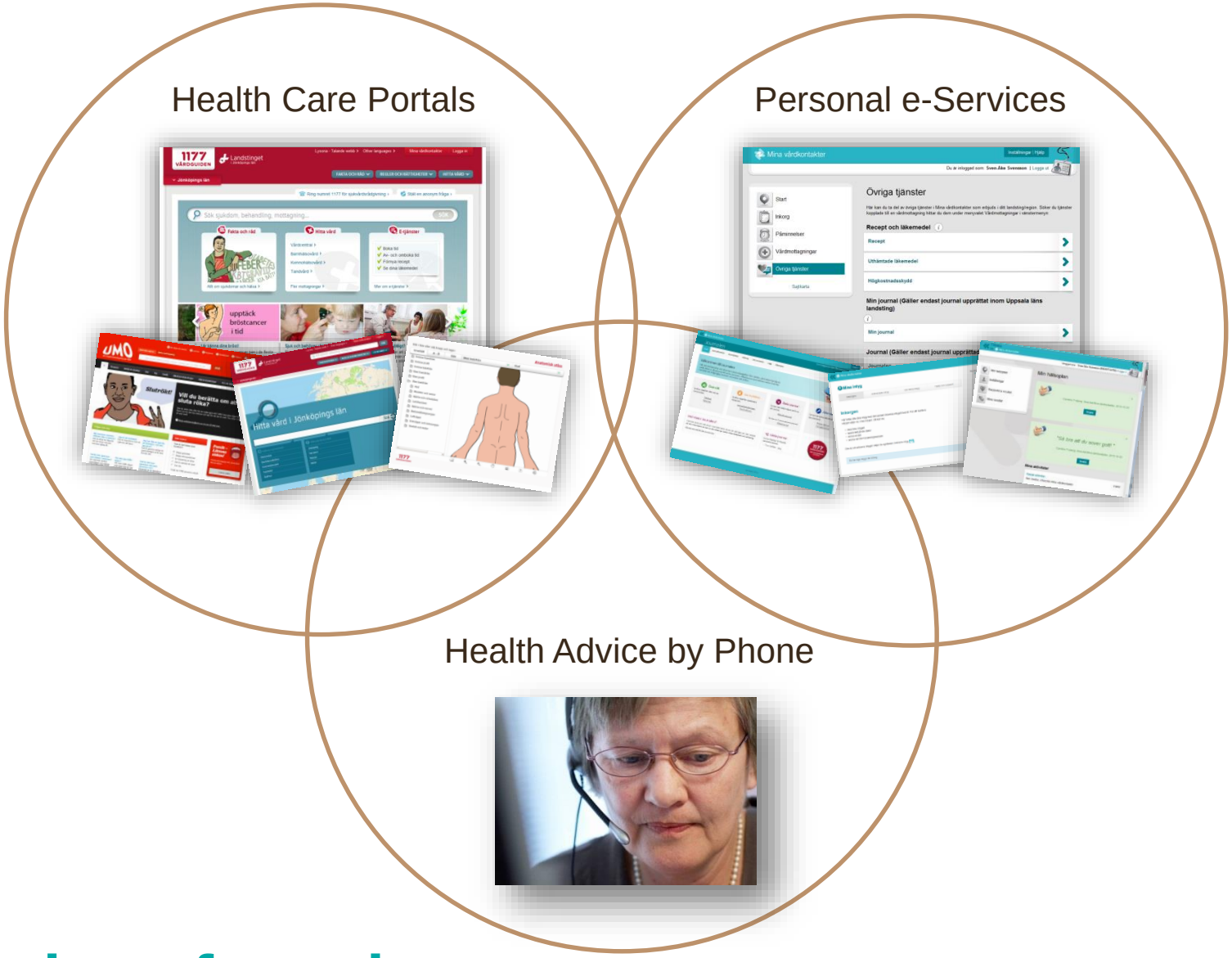

Three categories of services

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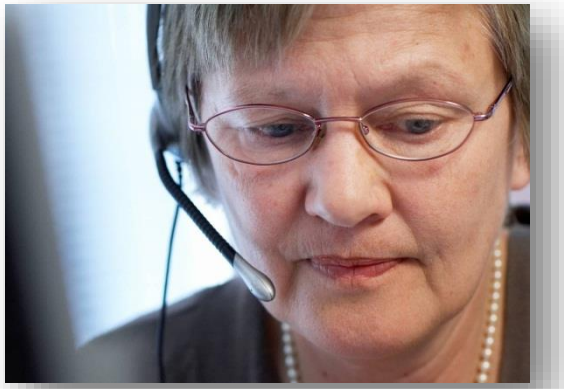
1177 - health advice by phone

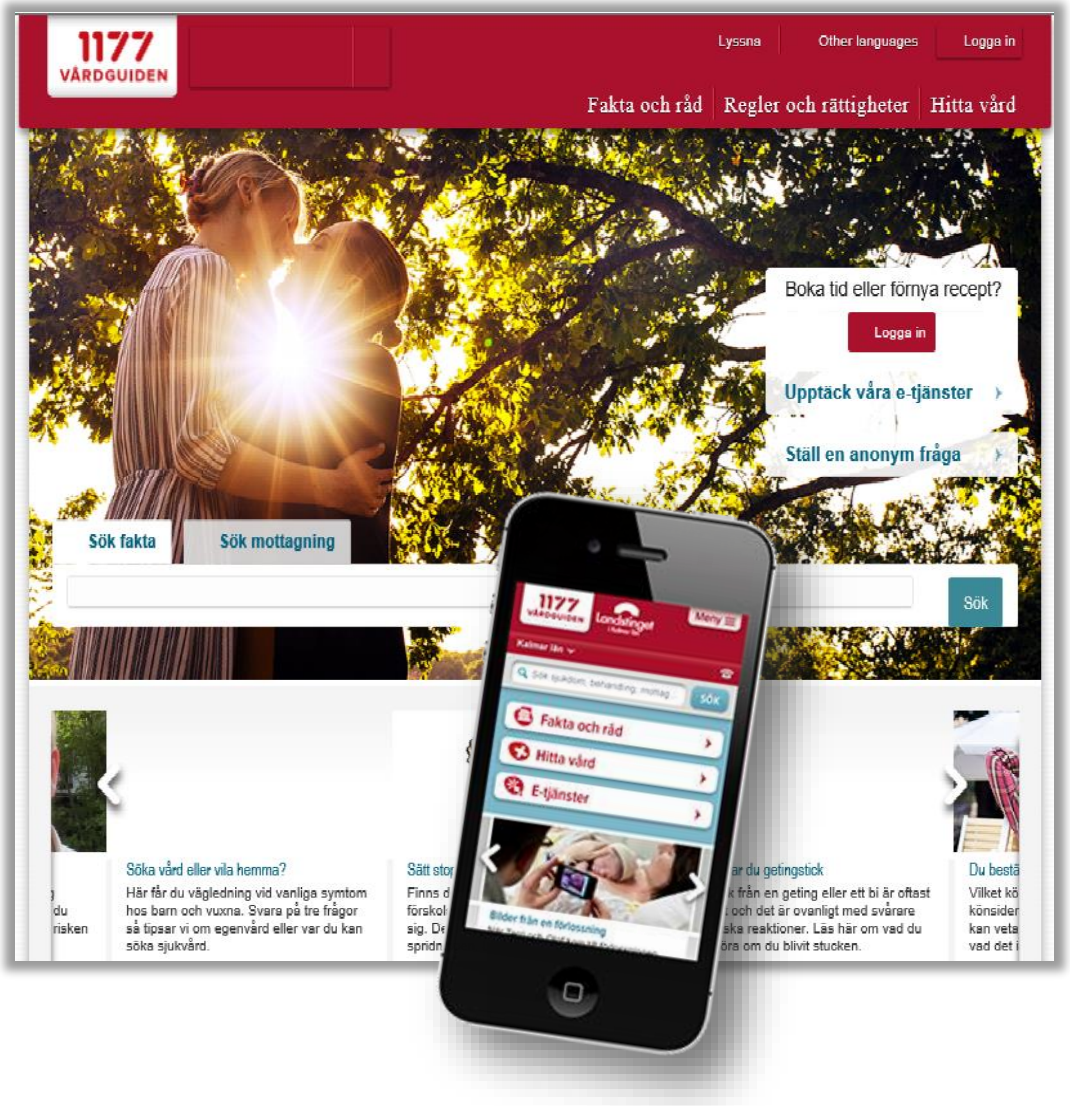
1177 is a national service. If you need health advice you can call 1177 - 24x7x365 wherever you are



- 460 000 people call 1177 each month
- 50% are given advice on self-care
- The other 50% are directed to the right level of care
- More than 90% are satisfied and follow the advice

1177.se – national healthcare portal

- Thousands of articles about health care, diseases, symptoms, medicines and treatments
- Pictures, videos, graphics
- 10 000 anonymous questions answered by doctors
- More than 8 million visits per month.



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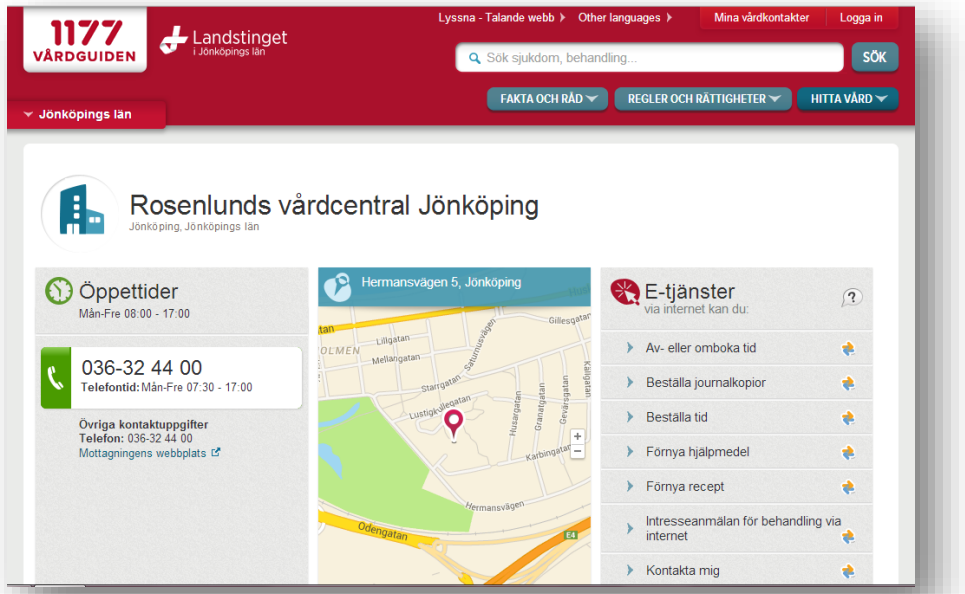
1177.se – contact and compare clinics

- Contact information to all clinics in Sweden
- Possibility to compare health clinics – availability, waiting times and patient satisfaction



UMO – youth clinic online

- For young people 13-25
- Information about, health, relationships and sex
- Information on equality of gender, sexual orientation, ethnicity and disabilities
- 10 000 anonymous questions answered by youth clinic professionals
- One million visits each month

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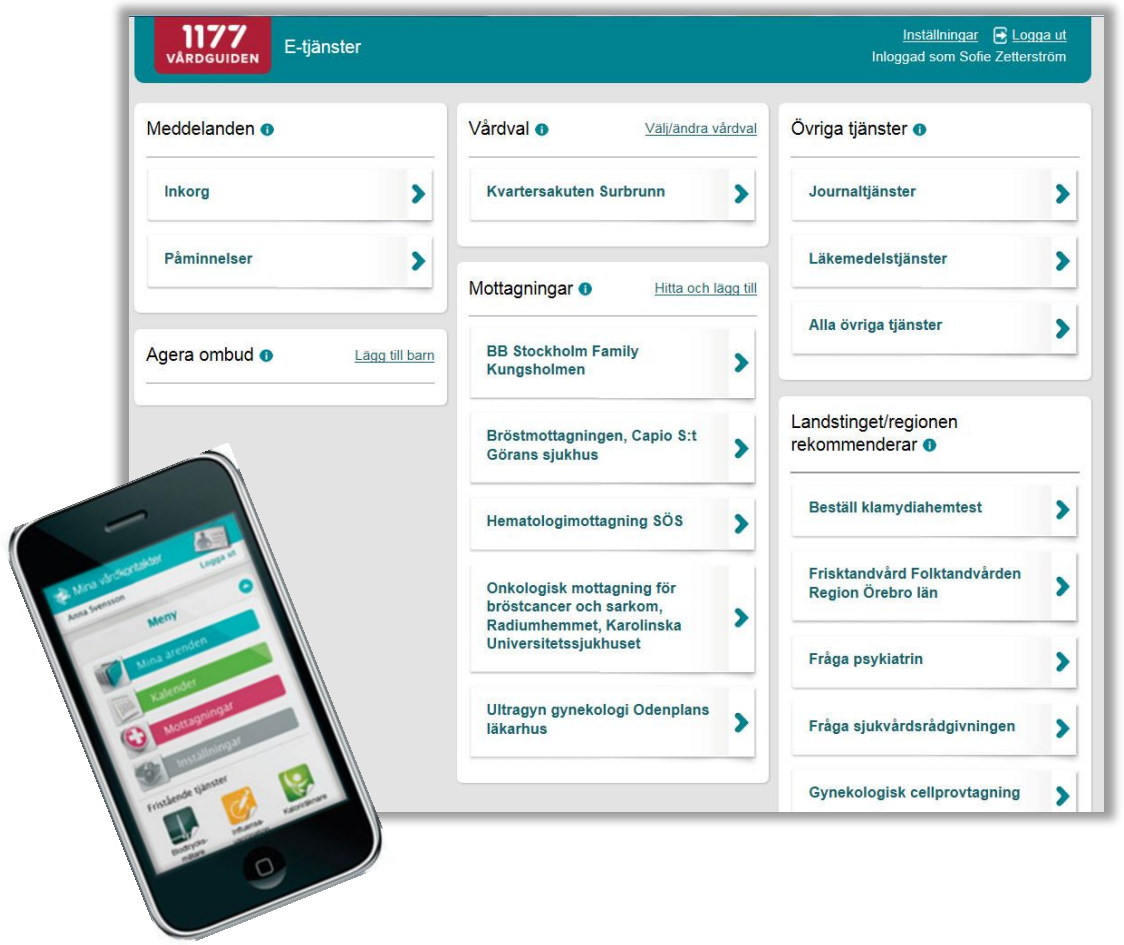
national personal e-services

A national platform for all personal e-services and medical records.

- Personal health advice
- Book an appointment
- Renewing prescriptions
- Ordering home-tests
- List of your medicines
- Test results
- Manage services for your children
- *and much more…*
- 4 million users



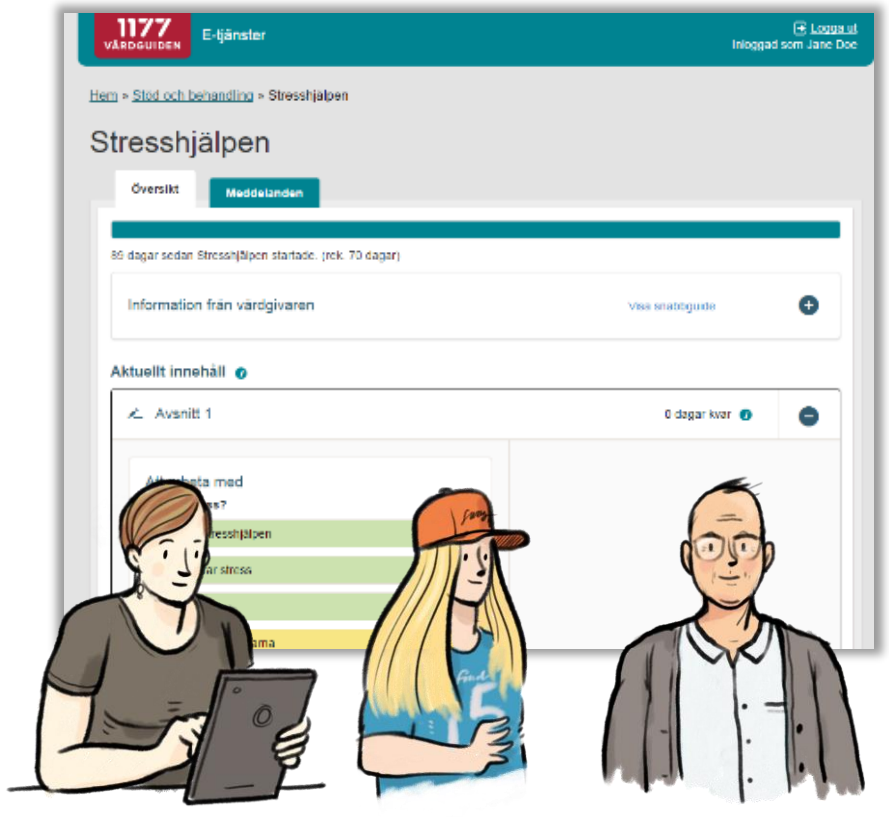
Health support and treatments online

Treatments:

- Depression
- Anxiety
- Phobias
- Insomnia
- …

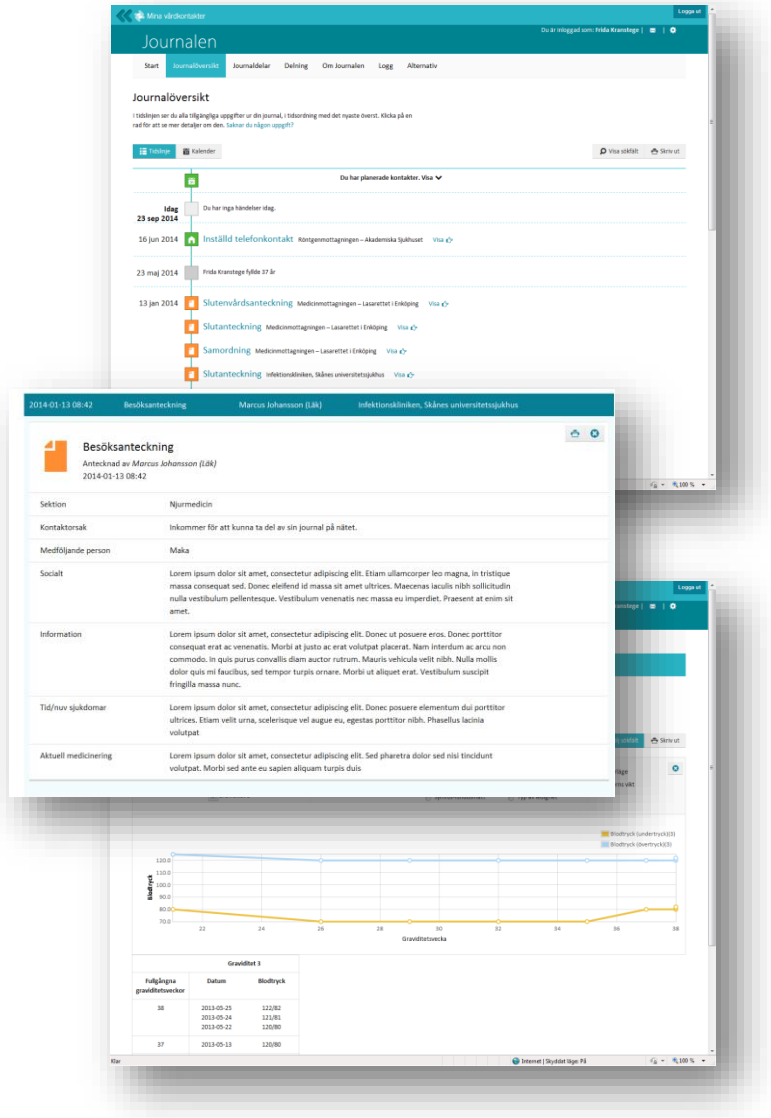
Health support:

- Changing lifestyle
- Rehabilitation
- Drug addiction
- …



Medical records online

- 18 counties have made medical records accessible online for citizens. All the other regions in Sweden will follow in 2017
- Providing records from clinics and information about immunizations, prenatal care, child care, drugs, test results, health care contacts, referrals …
- 1,3 million users, and increasing



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Research on patients shows

- Positive response to having access to the medical records
- The service is considered useful
- Patients follow up what was said at the last appointment
- Consider themselves better prepared for medical appointments and more informed about their own health
- They are comfortable with the service and have no worries about security issues
- Most patients want more information than is accessible
- Frustration when information is not readily available, e.g. unverified test results

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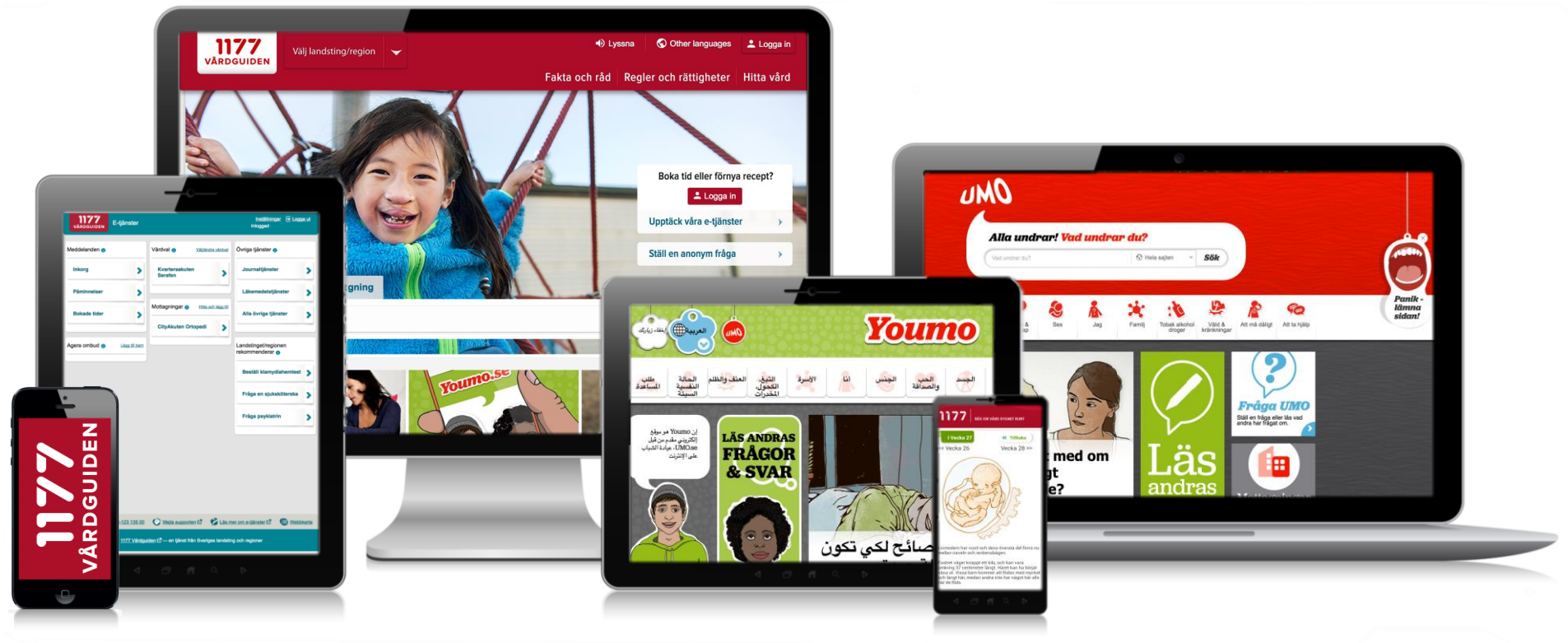
What can we offer our citizens in the coming years?

Maria Ekendahl, project manager ”Future 1177 Vårdguiden”


1177 VÅRDGUIDEN
Välj landsting/region
Lyssna
Other languages
Logga in
Fakta och råd
Regler och rättigheter
Hitta vård
Boka tid eller förnya recept?
Logga in
Upptäck våra e-tjänster
Ställ en anonym fråga
E-tjänster
UMO
Alla undrar! Vad undrar du?
Sök
Panik - lämna sidan!
Youmo
LÄS ANDRAS FRÅGOR & SVAR
Läs andras
Fråga UMO
1177 VÅRDGUIDEN

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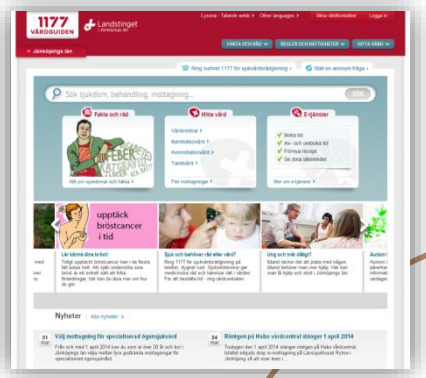
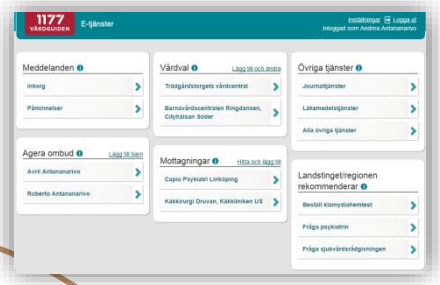
Healthcare Portal



E-services



1999-
2010

2006-
2015

Healthcare Advice by Phone

2006-
2013

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1177 VÅRDGUIDEN
Min översikt
Min översikt
Arne Enoksson Far
Hanna Eriksson Dotter
Bokade tider
10:00 Läkarbesök, Arne...
23 JAN
Bokad medverkan via videolänk .
Starta videomöte
Aktiveras 5 min innan
10:00 Cellprovtagning
31 JAN
Samaritens vårdcentral, Up...
14:30 Uppföljning provsv...
12 FEB
Samaritens vårdcentral, U...
Anteckningar
1 feb, Årskontroll, Tandhälsan
Uppsala
13 dec, Vaccination, Vaccinet
TBE-vaccin nummer 1 (av 3) gavs i vänster överarm av ssk Eva Andersson.
Ingen känd överkänslighet för läkemedel eller andra ämnen.
Inga kontraindikationer till ...
10 aug, Öronspolning, Samaritens vårdcentral
Uppsala
2 pågående ärenden
Kristina Eriksson
5 pågående ärenden
Arne Enoksson
2 pågående ärenden
Hanna Eriksson
Vaccin
8 jun, 8:30 TBE-vaccination
Vaccin mot fästingburen hjärninflammation, TBE, är avsett för personer som är 16 år och äldre.
Grundvaccinationsschemat är likadant för alla personer och består av tre doser. Den första dosen och den andra ...
Påminnelser
Ändra tid
Mottagningar
Favorit:
Samaritens vårdcentral
Sjukhusvägen 13
752 00 Uppsala
Besökta:
Samaritens vårdcentral
Sjukhusvägen 13
752 00 Uppsala
Läkemedel & hjälpmedel
Fluoxetin 20 mg, 1 per dag
1 uttag kvar, senast 1 jan 2018
Möjlig framtidsvision
inera

1177 VÅRDGUIDEN

Du har angett att du har ont i ryggen. I vilken del utav ryggen sitter smärtan?

Nedre delen, ländrygg | Övre axlar och skulderblad | Jämn värk i hela ryggen

Ont i nedre delen utav ryggen kan bero på många olika saker. Hur skulle du beskriva smärtan?

Molande värk | Huggande värk | Stickningar och domningar

Okej, molande värk i ländryggen. Om du försöker beskriva hur ont det gör på en skala där 1 är minsta tänkbara och 10 är mesta tänkbara värk, hur skulle du då beskriva din värk?

1 2 3 **4** 5 6 7 8 9 10

Jag förstår. För att kunna ge dig en bra rekommendation skulle jag behöva veta ungefär hur länge du har haft denna värk?

Mindre än 3 dagar | Mindre än en vecka | Mer än en vecka

Möjlig framtidsvision

inera

●●○○○ TELIA
07:09
ont i öronen
Har du tagit tempen med en termometer nyligen?
Nej, har ingen termometer
Bedömer du att du har hög feber?
Nej
Hur länge har febern varat?
Mindre än 1 dygn
Är ditt ytteröra svullet eller utstående?
Ja
Nej

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Infrastructural services

Mikael Johansson, IT-strategist, Inera

ICT in the Counties and Municipalities

Counties

- Total cost of IT (incl. own staff) in the Counties is estimated to €1.02 Billion ($1.13 Billion)
- Estimated to 2,9 % of turnover (has been so for 10 years)
- 75% purchased on the market

Municipalities

- Much more dependent on their system provider than counties
- High focus on digitalization

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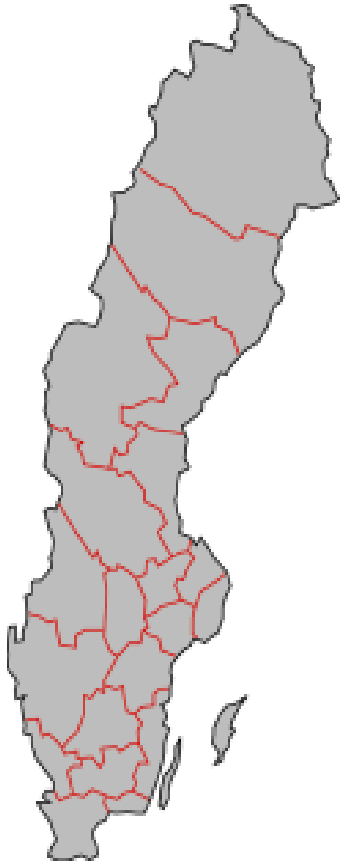
ICT in the Counties and Municipalities

Counties



Vendor & System name

- Cambio, Cosmic
- Evry, Systeam Cross
- Norrbotten, VAS
- CompuGroup Medical, Take Care
- Cerner, Melior

Municipalities

Vendor & System name

- Tieto, ProCapita
- CGI Group, Treserva
- Pulsen, Magna Cura
- Cambio, Viva

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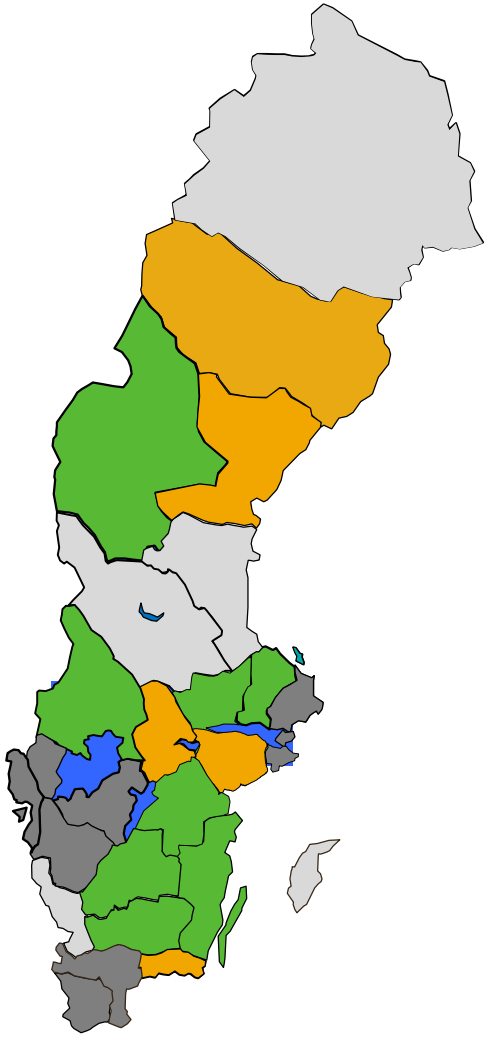
Future healthcare information systems

Cooperation for procurement between the counties 2015



Cosmic: 2,2 milj invånare

- Jämtland
- Värmland
- Västmanland
- Uppsala
- Östergötland
- Jönköping
- Kronoberg
- Kalmar

SUSSA: 1,2 milj invånare

- Västerbotten
- Västernorrland
- Örebro
- Sörmland
- Blekinge

3R: 5,1 milj invånare

- Västra Götaland
- Skåne
- Stockholm

Övriga, 1,2 milj invånare

- Norrbotten
- Dalarna
- Gävleborg
- Gotland
- Halland

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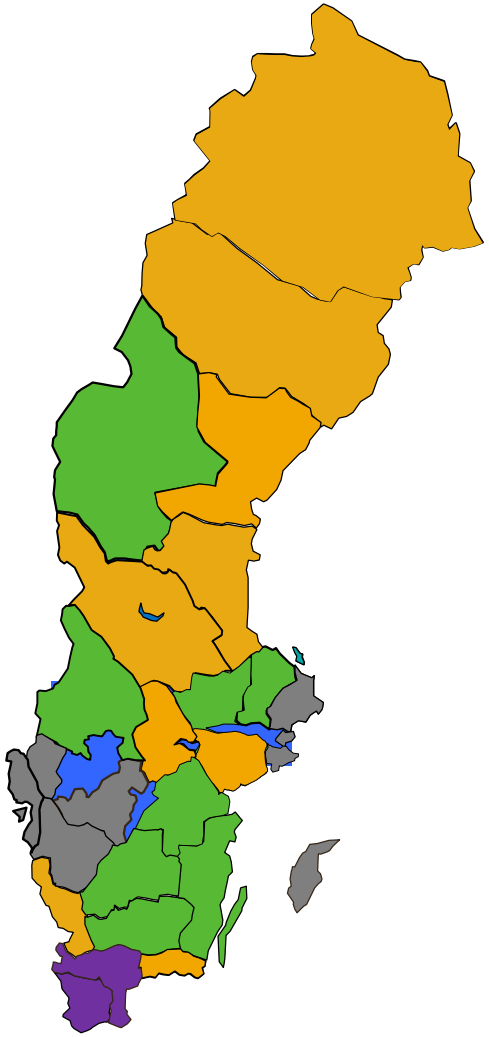
Future healthcare information systems

Cooperation for procurement between the counties 2016



Cosmic: 2,2 milj invånare

- Jämtland
- Värmland
- Västmanland
- Uppsala
- Östergötland
- Jönköping
- Kronoberg
- Kalmar

SUSSA: 2,4 milj invånare

- Västerbotten
- Västernorrland
- Örebro
- Sörmland
- Blekinge

Option

- Norrbotten
- Dalarna
- Gävleborg
- Halland

3R

3,9 milj invånare

- Stockholm
- Gotland
- Västra Götaland

1,3 milj invånare

- Skåne

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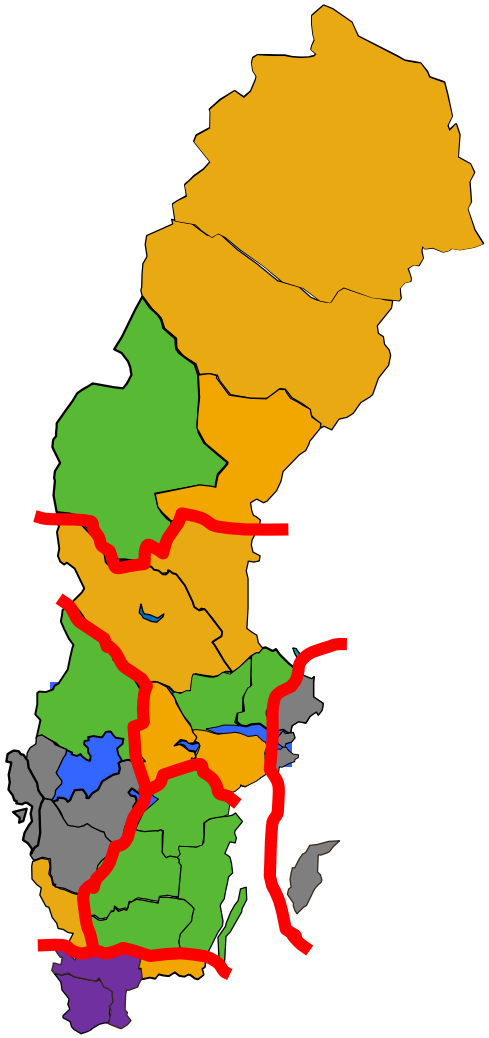
2016: Proposal for larger regions starting 2019 or 2023



Cosmic: 2,2 milj invånare

- Jämtland
- Värmland
- Västmanland
- Uppsala
- Östergötland
- Jönköping
- Kronoberg
- Kalmar

SUSSA: 2,4 milj invånare

- Västerbotten
- Västernorrland
- Örebro
- Sörmland
- Blekinge

Option

- Norrbotten
- Dalarna
- Gävleborg
- Halland

3R

3,9 milj invånare

- Stockholm
- Gotland
- Västra Götaland

1,3 milj invånare

- Skåne

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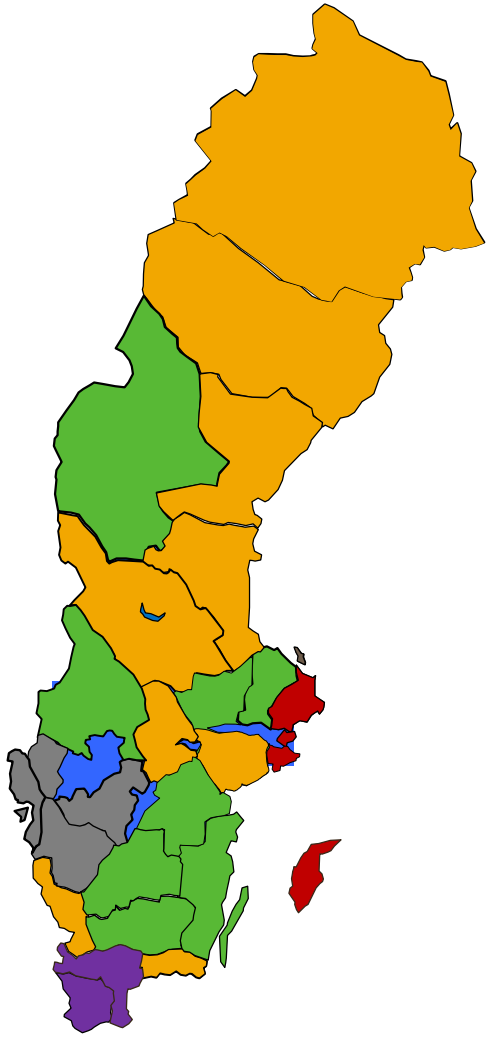
Future healthcare information systems

Cooperation for procurement between the counties 2017



Cosmic: 2,2 milj invånare

- Jämtland
- Värmland
- Västmanland
- Uppsala
- Östergötland
- Jönköping
- Kronoberg
- Kalmar

SUSSA: 2,4 milj invånare

- Västerbotten
- Västernorrland
- Örebro
- Sörmland
- Blekinge

Option

- Norrbotten
- Dalarna
- Gävleborg
- Halland

Stockholm, Gotland: 2,3 milj invånare

- Stockholm
- Gotland

Västra Götaland: 1,6 milj invånare

- Västra Götaland

Skåne: 1,3 milj invånare

- Skåne

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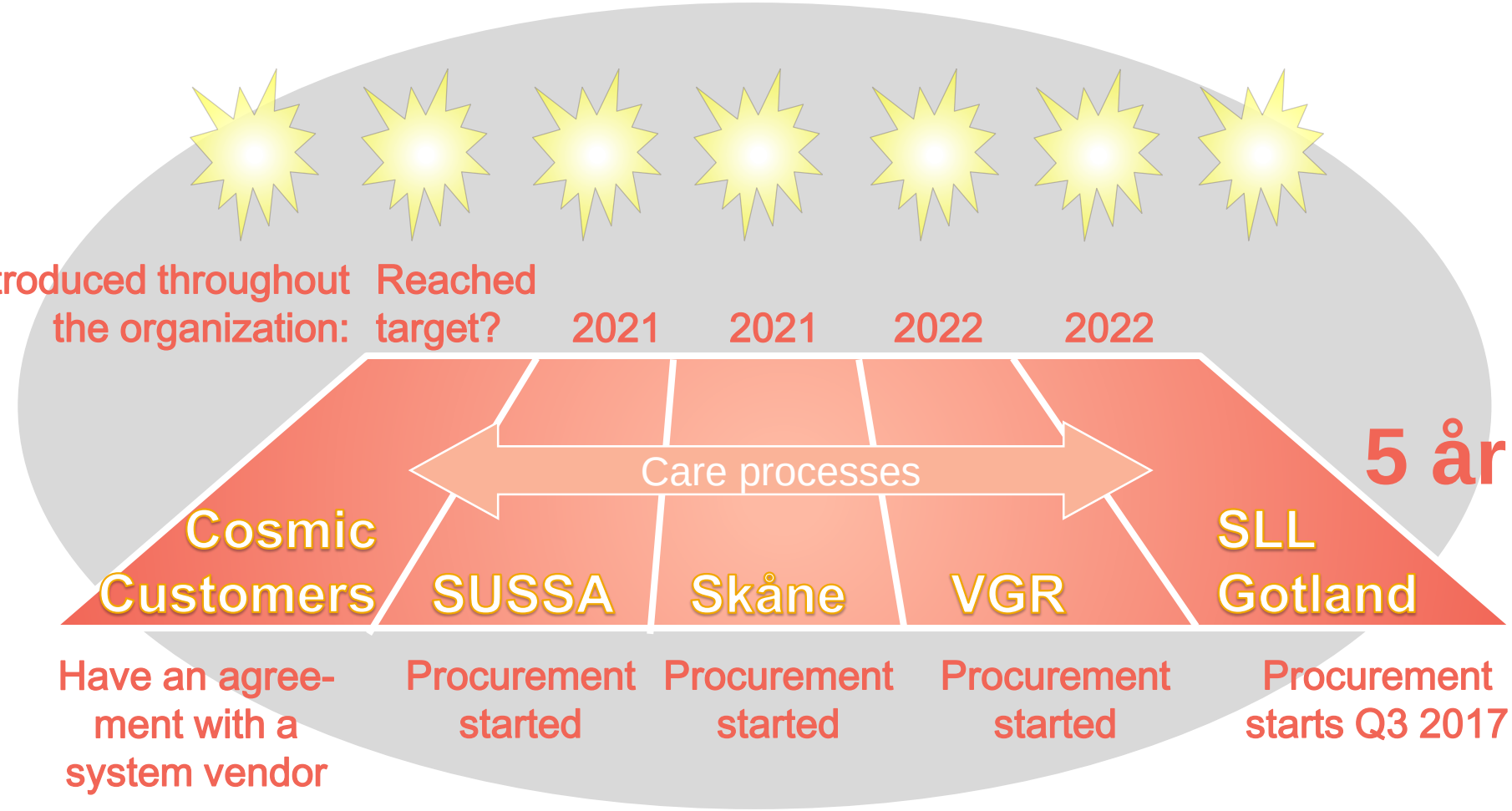
Lights on the procurement groups 2017

in the race towards the next healthcare information system for the counties



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National eHealth ICT Infrastructure

- Meet the requirements of the Patient Data Act and the goals in the National eHealth strategy.
- Interoperability, security, cost-effective information access between counties, municipalities, government agencies and private providers.

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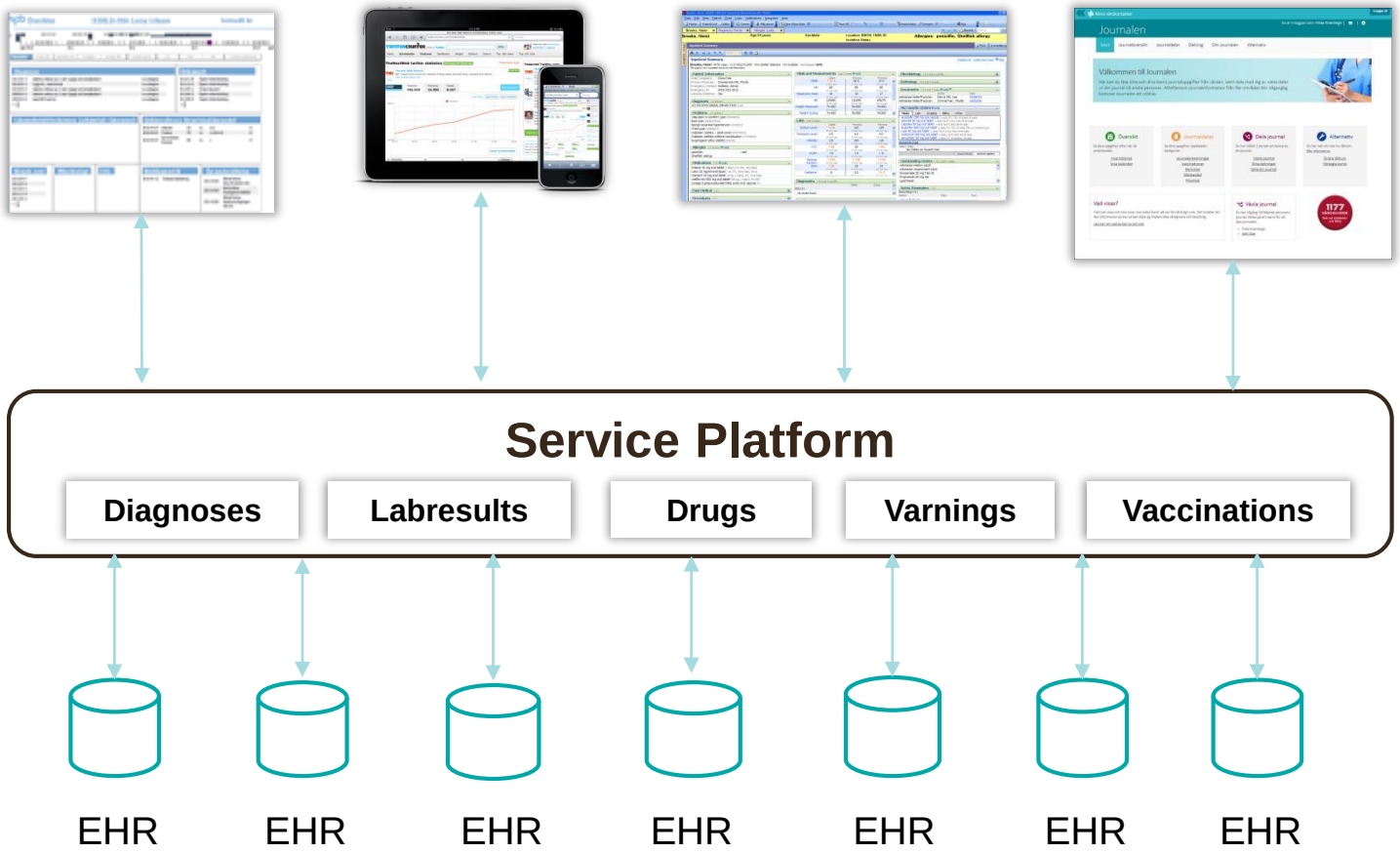
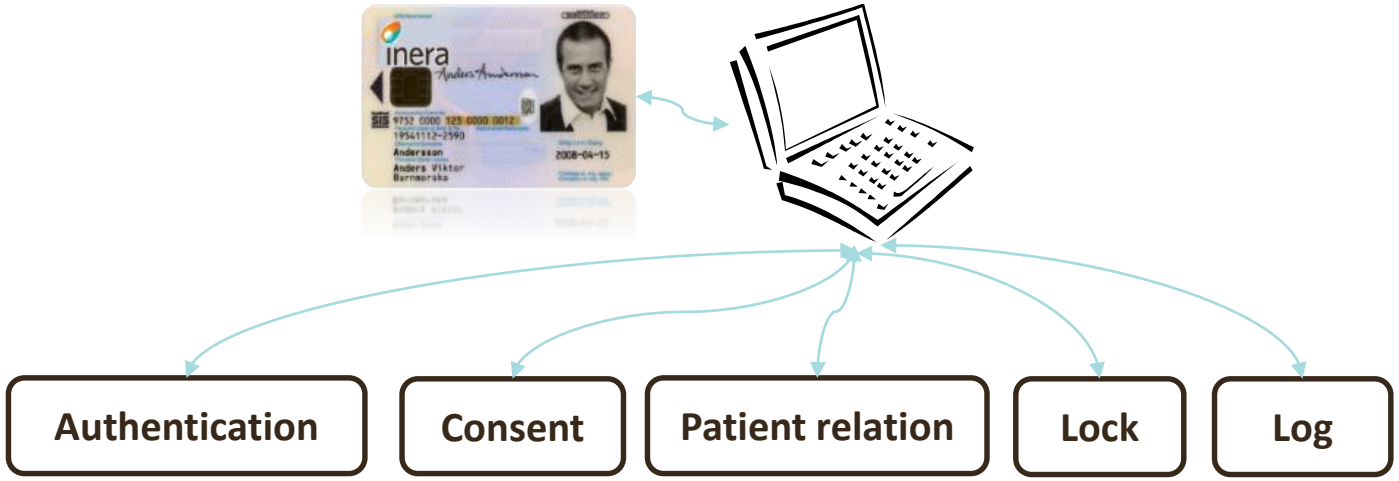
National service platform for interoperability



Services for compliance with the patient data act

- Public Key Infrastructure (PKI)
- Services for authentication, consent, patient relation, lock and log
- Directory service with all healthcare professionals. Organizations and units with employee assignments

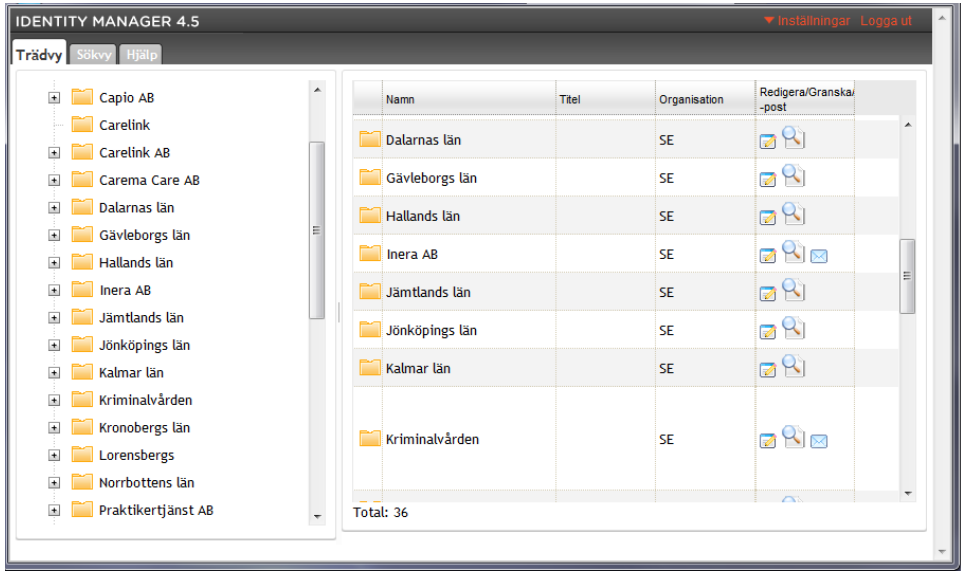


National Public Key Infrastructure

- ID for both physical and electronic identification
- More than 500,000 cards have been issued
- Connected organisations:
  - All 21 Counties
  - All 290 Municipalities
  - Lots of private organisations

National directory service

- Quality assured data regarding employees, organizations and units with employee assignments
- Information in the directory is used by many different services and it is a key component for access and security services.
- All counties, municipalities, as well as private healthcare providers use this directory service.



National communication network

- More than 500 connected organizations
- All 21 counties are connected
- Several municipalities, private healthcare providers and suppliers are also connected
- Very high availability, close to 100%
- Quality of Service that meets demands

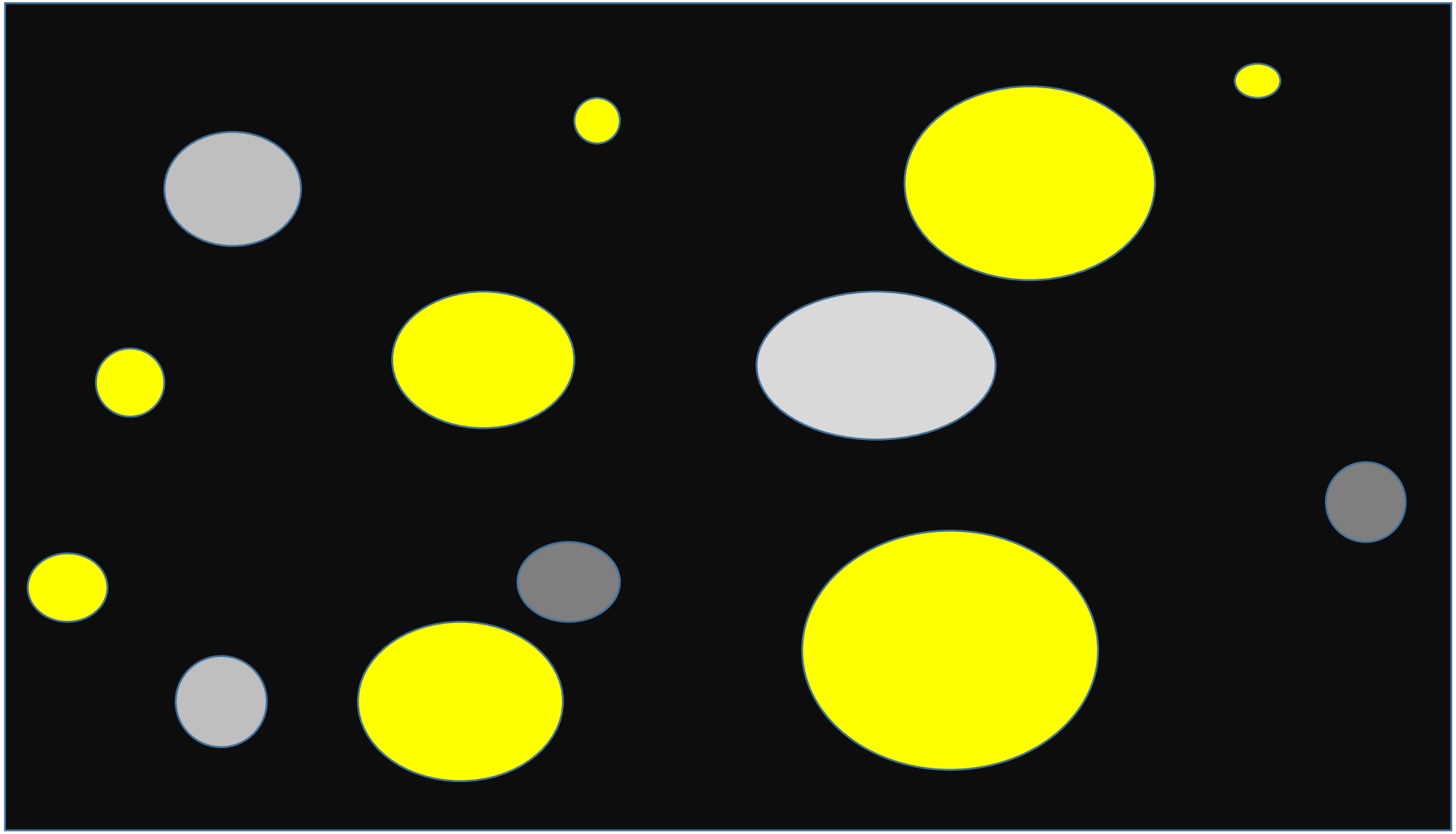
Performance measurement and national indicator sets in Sweden

Quality and Efficiency in Swedish Health Care –
Regional Comparisons and web based reporting in *Health Care In Numbers /Vården i Siffror*

Fredrik Westander, SALAR
Adam Sandebring, SALAR
Mailadress: fredrik.westander@skl.se

Swedish Association of Local Authorities and Regions

Quality in the health care system - we have good data JUST for some parts/aspects of care – yellow spots. Grey spots – some data, but not good enough. And also large black areas – aspects/areas where much less data is available: Complex quality aspects, multimorbidity. We need to be humble. We cant measure ”everything”



Health Care Quality Indicators - Reporting System

Three types of reports & indicator sets

- Regional Comparisons - health care quality – now mainly web-based reporting (SALAR) + yearly reporting from NBHW (= Socialstyrelsen, the state agency)
- National Performance Assessments – evaluation of goals in National Guidelines (Socialstyrelsn)
- National Quality Registries – yearly reports

National Quality Registries (close to 100 registries from large to very small)

- Not mandatory, based on professions/medical societies
- Gradually a more formal part of the national/public framework
- Large increases in public funding in later years

Overlapping sets of indicators – we try to harmonize when choosing indicators

Healthcare in Numbers (SALAR) and National Board of Health & Welfare cooperate

In comparison to other countries - good health care quality data available from Swedish registries (we think…)

- **Personal/unique ID** used in all vital registers – all citizens
- **Mandatory Patient Register** for out-/inpatient episodes of care
- **Prescribed Drug Register** for outpatient drugs
- **Quality Registers** includes more/accurate clinical information, outcomes
- **Combined use of these registers = powerful tool**

Good data available, but also some obvious gaps:
No good data on breast cancer screening, flu immunization of elderly, primary care data …

Regional Comparisons of Health Care Quality

- Published yearly 2006-2014;
- About 260 indicators 2014 (most updated yearly)
- State & CC:s (SALAR) in cooperation. Symbolic value

Socialstyrelsen
THE NATIONAL BOARD OF HEALTH AND WELFARE

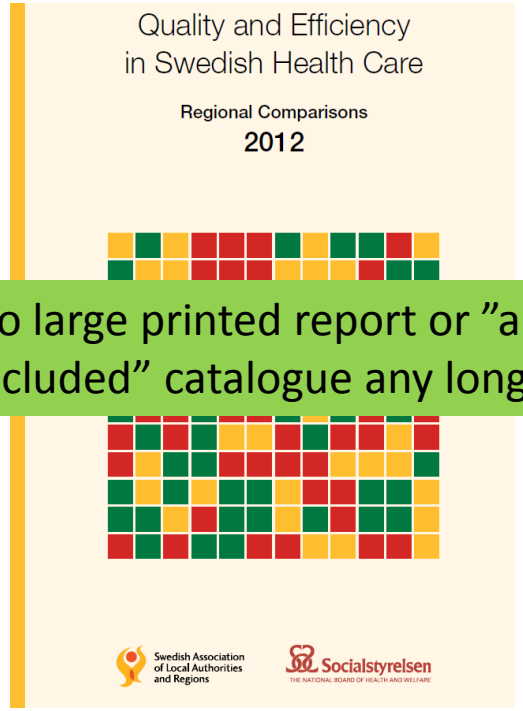
Swedish Association of Local Authorities and Regions

- Main stated purposes:
  - Support county councils improvement efforts
  - Transparency, accountability
  - Inform health care debate – locally and at national level

The present day (2017) reporting model

Swedish Association of Local Authorities and Regions

SALAR - Mainly web base reporting

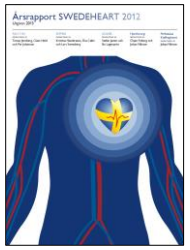


No large printed report or ”all included” catalogue any longer

Socialstyrelsen
THE NATIONAL BOARD OF HEALTH AND WELFARE

Various reports, based on formal performance indikators. Evaluation of clinical guidelines etc

Plus Quality Register: Yearly reports and also web based reporting for the largest registers.



Messy model? Not really a problem, but we need to think about solid solutions for the future.

National Quality Registries

In 2016: 96 National Quality Registries (NQRs); 12 NQR candidates; all initiated and led by healthcare professionals

NQRs cover many areas of healthcare, from common to rare conditions, from nursing and primary to tertiary care.

Examples: Stroke; Ischemic heart disease; Heart failure; most forms of cancer; Bipolar disorder; Eating disorders; End-of-life care; Neurology with MS, Parkinson's etc; Dementia care; HIV-AIDS; Diabetes Mellitus; Orthopedics

Financing and Governance

- The Ministry of Health and Welfare (70 %); Swedish County Councils and Regions (30 %)
- Funding is provided according to specified criteria; $50,000 - $800,000 annually/registry
- The more mature the NQR, the greater the expectations on it and the potential funding
- Each NQR is governed by a multiprofessional group of national experts, and often patients

Registries Contain Data On:

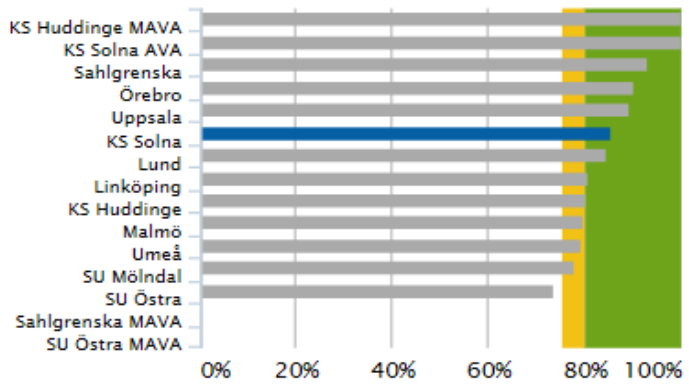
Initiated before the emergence of electronic health records (EHRs), most registries operate in parallel with EHRs. Integration is desired but occurring only slowly.

- Patient demographics
- Provider organization characteristics
- The Structure of care
- The Process of care (including patient-reported experience measures; PREMs)
- The Outcomes of care (including patient-reported outcome measures; PROMs)

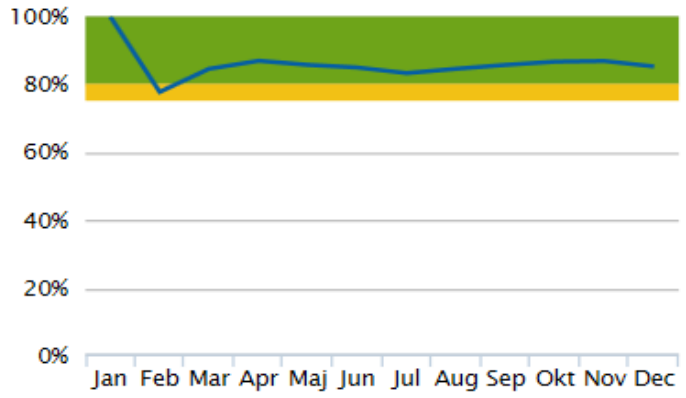
Swedeheart – QR for heart attack and related heart conditions: On line reporting of performance – individual hospitals. Green is full goal fulfillment. Yellow is partial goal fulfillment. Good, valid quality indicators. Powerful tool.

2. Reperfusion i tid

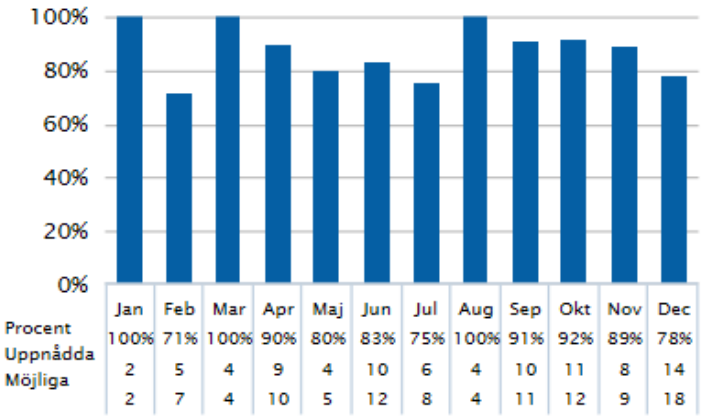
Ranking



Trend



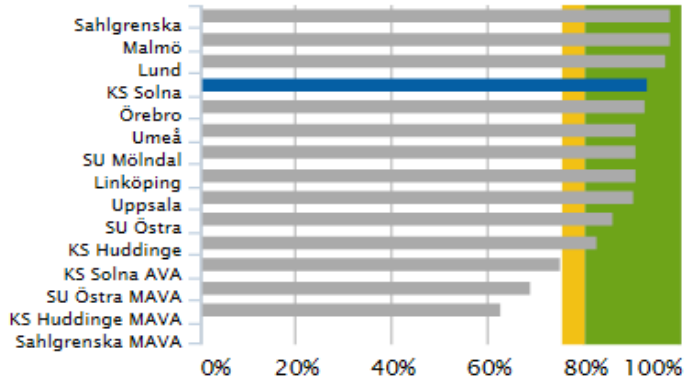
Månadsresultat



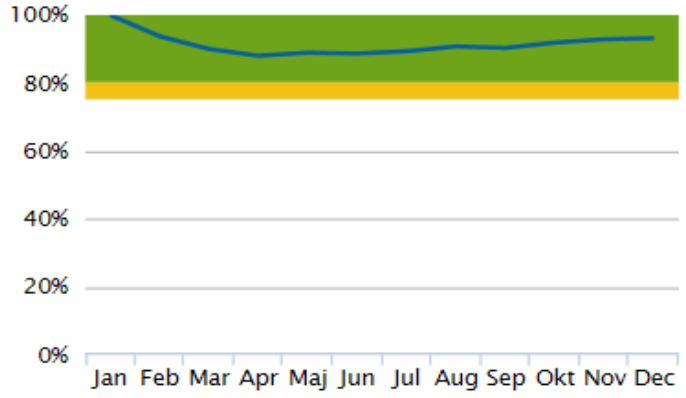
	Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
Procent	100%	71%	100%	90%	80%	83%	75%	100%	91%	92%	89%	78%
Uppnådda	2	5	4	9	4	10	6	4	10	11	8	14
Möjliga	2	7	4	10	5	12	8	4	11	12	9	18

3. Kranskärlsröntgen NSTEMI

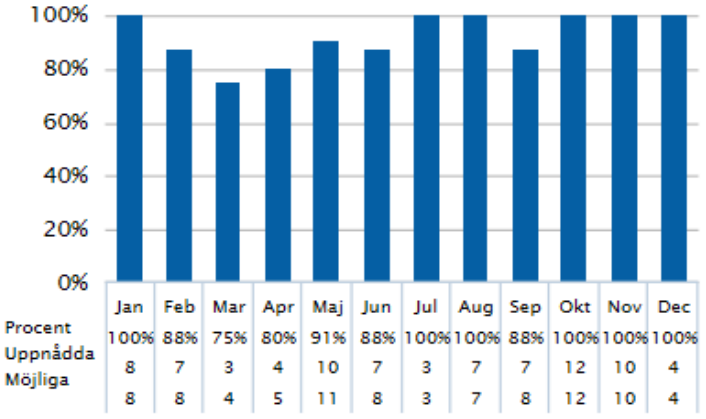
Ranking



Trend



Månadsresultat



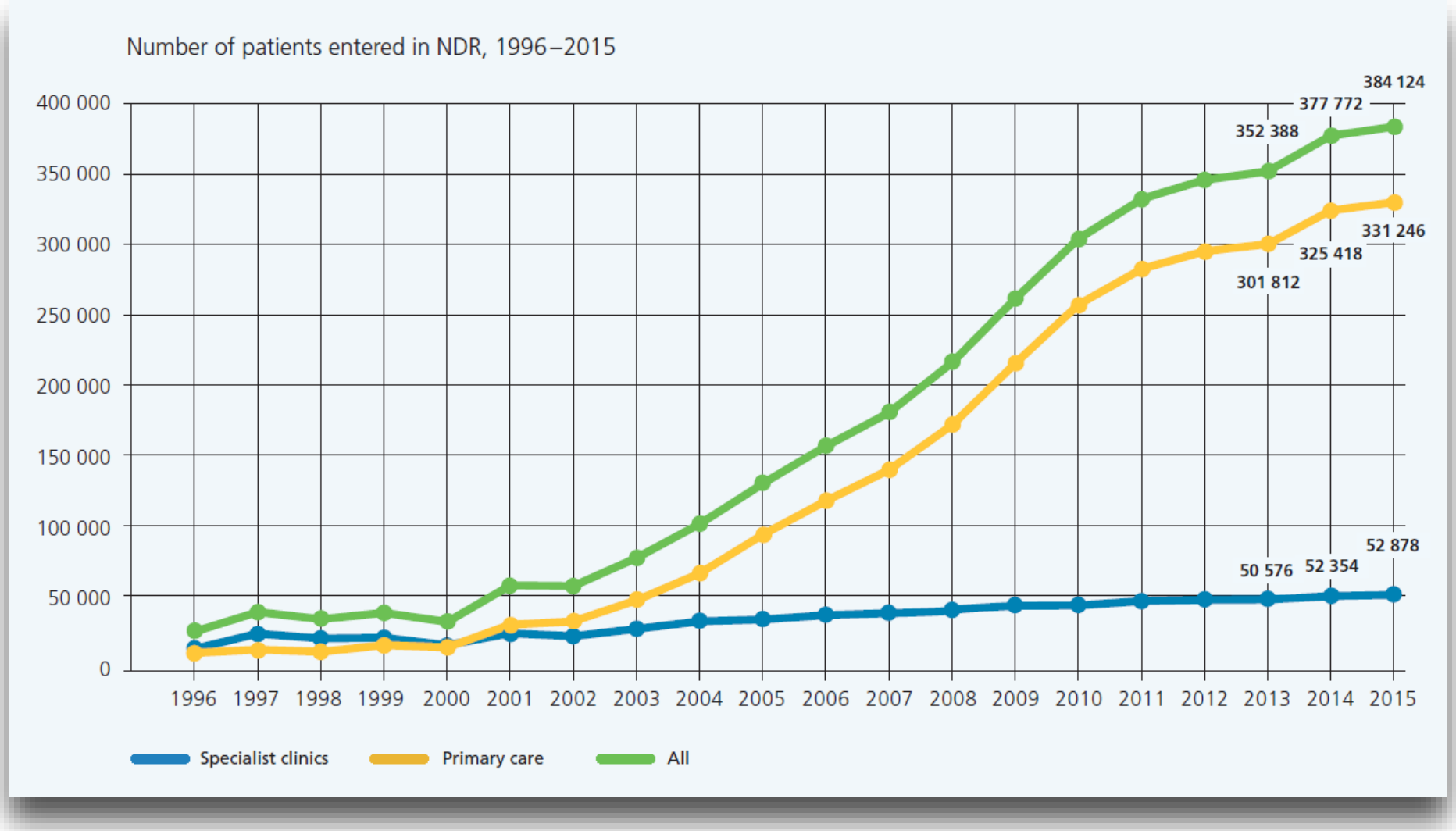
	Jan	Feb	Mar	Apr	Maj	Jun	Jul	Aug	Sep	Okt	Nov	Dec
Procent	100%	88%	75%	80%	91%	88%	100%	100%	88%	100%	100%	100%
Uppnådda	8	7	3	4	10	7	3	7	7	12	10	4
Möjliga	8	8	4	5	11	8	3	7	8	12	10	4

NDR, National Diabetes Registry

- 100 % of hospital-based diabetes centers
- > 90% of primary care/general practice centers, about 1200
- Covers about 90% of all individuals with diabetes in Sweden
- Direct transfer of relevant patient data (via EHR-extracting software)
- Results per center and county council are public and easy to access
- Funding
  - Swedish Association of Local Authorities and Regions
  - Region Western Sweden

Number of patients

9.5 million inhabitants, < 5% diabetes prevalence



National Diabetes Register

A performance dashboard for CC Dalarna, primary care.

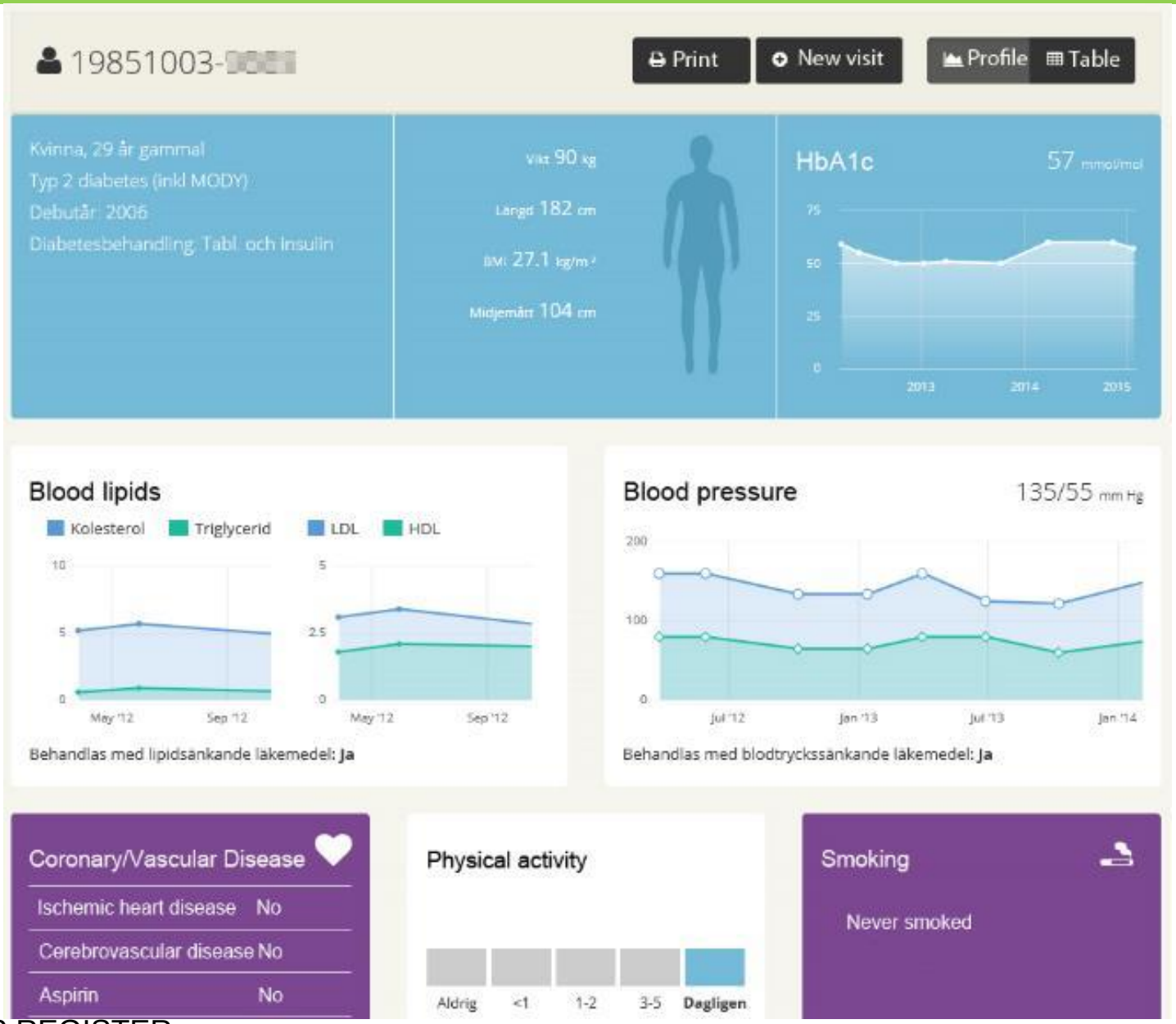
12 indicators; red and green scores (compared to Sweden results).

Blood pressure, foot/eye exams, blood glucose levels, smoking status, psysical activity etc

Results accessible on the web for all; even per primary care center.

Transparency! But also – of course – difficulties for the general public to interpret quality data.

Patient profiles in NDR – a tool for empowering patients



SWEDISH DIABETES REGISTER

Regional comparisons/Healthcare in Numbers– characteristics

- Covers whole health care system – in principle
- Directed towards CC leadership, not hospitals directly (this could now shift somewhat)
- Present valuable data to CC, not inspection =”soft power”
- Comparisons between County Councils & between hospitals (now also units in hospitals)
- Both process & outcome measures, in later years also national targets
- Use only existing data sources; no temporary data collections
- No ranking of ”Best County Council”, ”Best Hospital” – difficult (and meningless?)
- Gradually – more focus on usability, improvement, change over time, not evaluation

Cardiac Care in – indicators. (Now updated in more recent publications)

Not bad, but still, - imbalance: Too much focus on MI/heart attack. Too little on heart failure. A general problem with indicator sets – we are dependent on data availability and data quality. **What we can meausure tends to get too much attention.**

CARDIAC CARE

Outcome	86	Survival after Cardiac Arrest outside of Hospital
	87	Myocardial Infarction – 28-day Case Fatality Rate
	88	Myocardial Infarction – 28-day Case Fatality Rate – Hospitalised Patients
	89	Recurrence of Infarction or Death from Ischaemic Heart Disease
Process	90	Reperfusion Therapy for Patients with ST-segment Elevation Myocardial Infarction (STEMI)
	91	Time until Reperfusion Therapy for Patients with ST-segment Elevation Myocardial Infarction (STEMI)
	92	Coronary Angiography after Non-ST-segment Elevation Myocardial Infarction (NSTEMI) in Patients with Another Risk Factor
Secondary prevention	93	Antithrombotic Therapy after NSTEMI
	94	Lipid Lowering Drug Therapy after Myocardial Infarction
Outcome	95	PCI for Unstable Coronary Artery Disease – 365-day Case Fatality Rate
	96	Restenosis of the Coronary Artery after PCI
	97	Death or Readmission after Hospitalisation for Heart Failure
	98	Drug Therapy for Heart Failure
	99	Complications after Pacemaker Implantation

National quality indicators – use in County Councils

National Guidelines & Indicators

National Performance Assessments

Quality registrys reports

Comparisons betwwen CCs and hospitals

Socialstyrelsen
THE NATIONAL BOARD OF HEALTH AND WELFARE

Socialstyrelsen
THE NATIONAL BOARD OF HEALTH AND WELFARE

County Council perspective

Comparisons as a recurrent, yearly ”event” – reports based on Healthcare in Numbers

National indicators as a local/regional benchmark tool

National indicators – part of CCs own indicator sets

Support for CC decision making, priority setting

Some CCs use quality indicators in pay for performance schemes (P4P)

But normally used just to support local improvement efforts – hospitals, clinics

Development/selection of indicators – ”tomorrow”

- National guidelines & quality registers will be important in years to come
- But gradually (2017 onwards) a new context will emerge – a national structure for coordination among County Councils/Regions
- ”Clinical governance committes” (my amateur translation) with a wide remit to issue recommendations in their field of expertise
- Based on diseases/health conditions, about 20, plus sub groups
- Appointed by county councils, managed by CCs and SALAR
- Purpose & role: Analyze quality problems, propose activities/changes, indicators to be included in Healthcare in Numbers etc

Policy aspects – performance indicators

- Focus on provider (clinical) quality vs population health
- Ranking of healtcare systems/providers – pros and cons?
- Is the main purpose to judge or support improvement?
- A good indicator - how strict criteria?
- Process vs outcome indicators – even ”structural” indicators
- Data quality – how strict criteria?
- Indicators as a signal with normative meaning or a truth?
- Simple or nuanced (case mix adjustment etc) presentation?
- Etc
- **What have we learnt in Sweden – with 10 -15 years of experience from performance measurement and public reporting?**

Healthcare in Numbers (Vården i Siffror)

- Launched 2015, december – web based reporting
- SALARs (and Swedens) main collection of performance indicators
- Also costs, incidence, self reported health, patient surveys, variation in consumption/practice variation…
- County councils, hospitals, primary care centers – all units where ther is menaingful data
- When possible and meaningful – data updates each quarter/month; otherwise yearly

And the future (for SALAR) is alreday here - Web based reporting

If time permits and the participants are not exhausted –

a live glimpse at Vården i Siffror – Health Care in Numbers is possible – but in Swedish.

Swedish Association of Local Authorities and Regions

Vardenisiffror.se

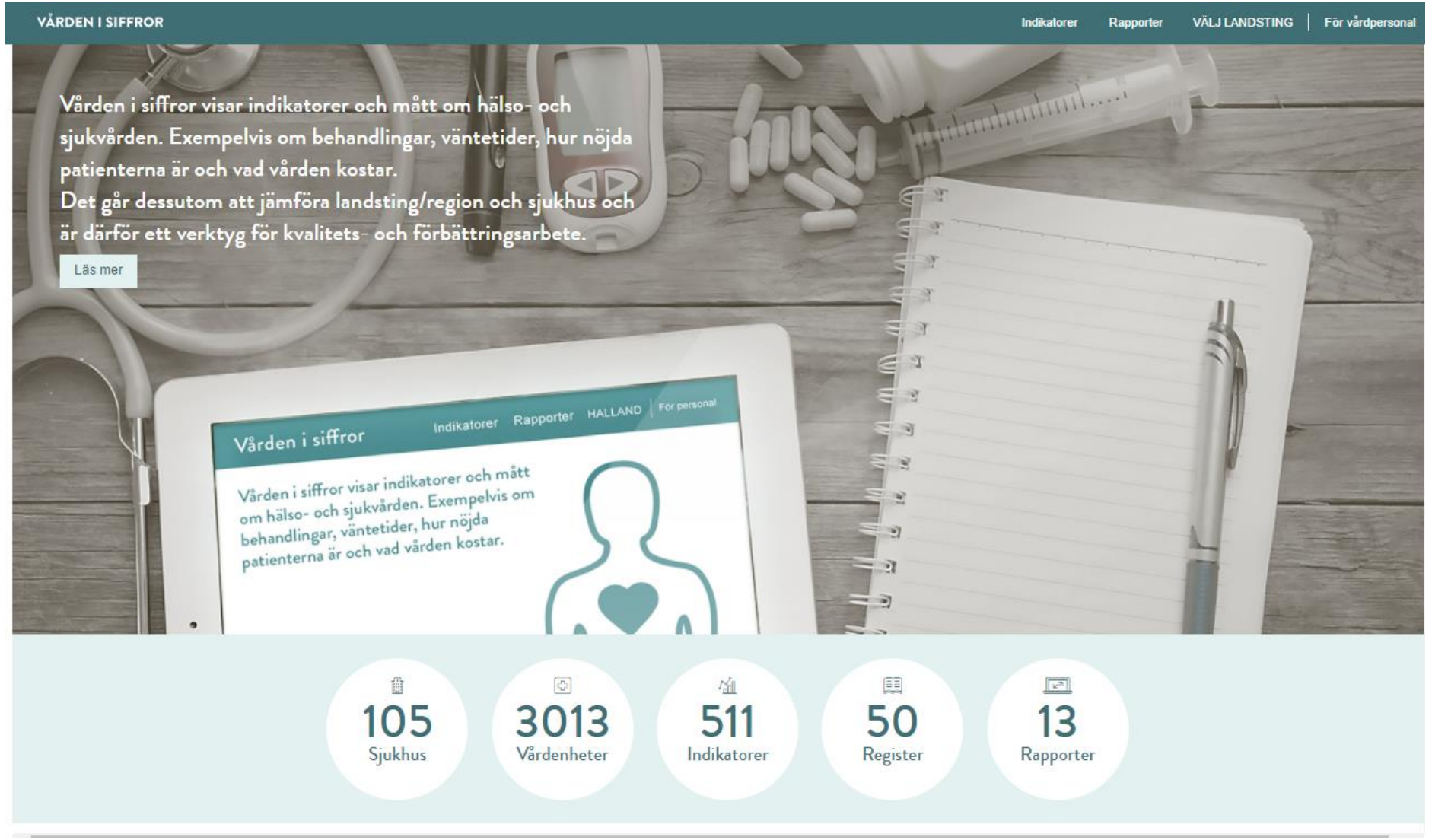
(Health-care in numbers)

Open access to quality data to increase healthcare performance

2017-08-31

Vardenisiffror.se publishes national Swedish healthcare indicators regardless of source system

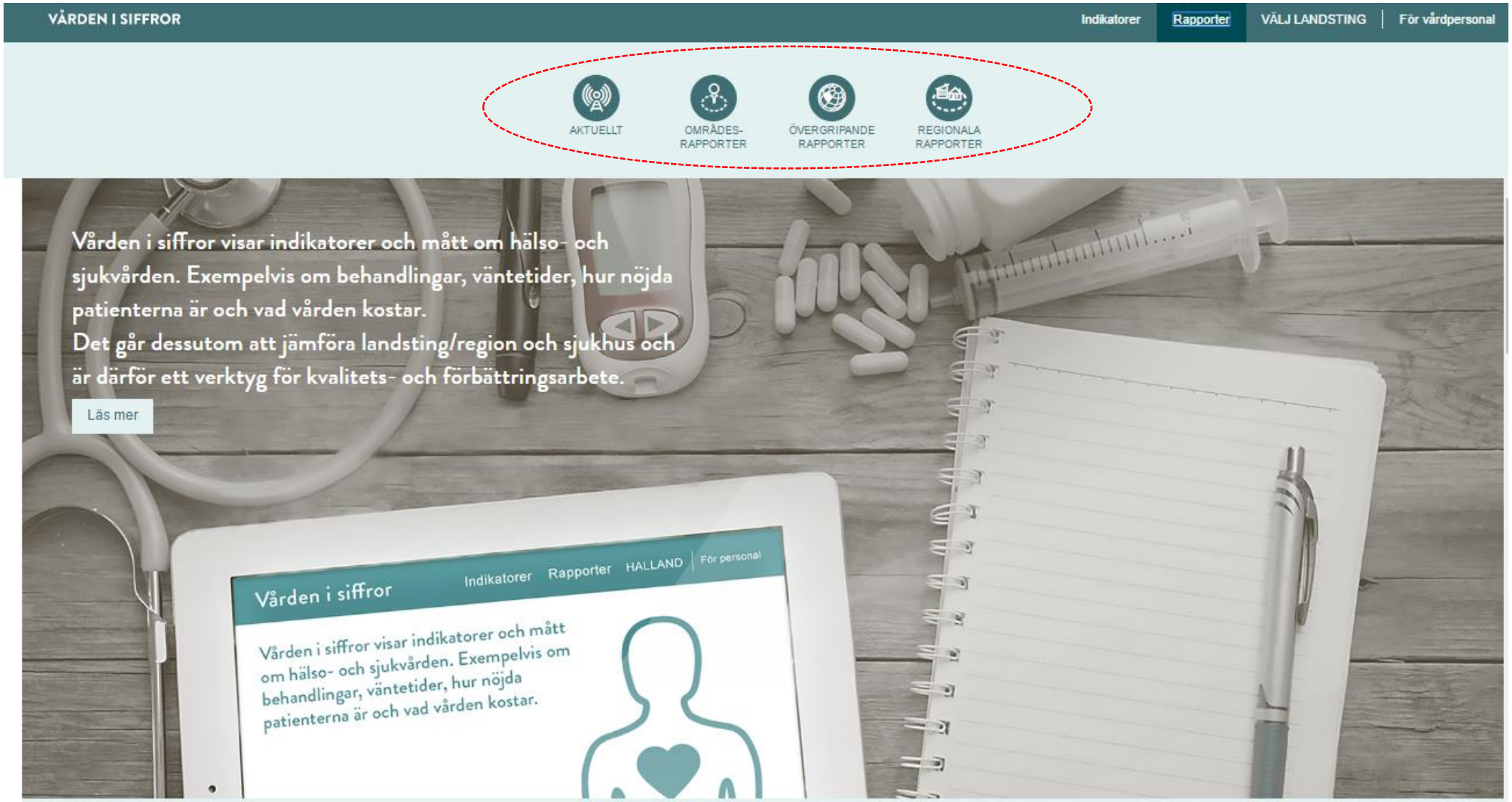
Swedish Association of Local Authorities and Regions



All indicators searchable: keywords, diagnostics, hospital, source system, search function

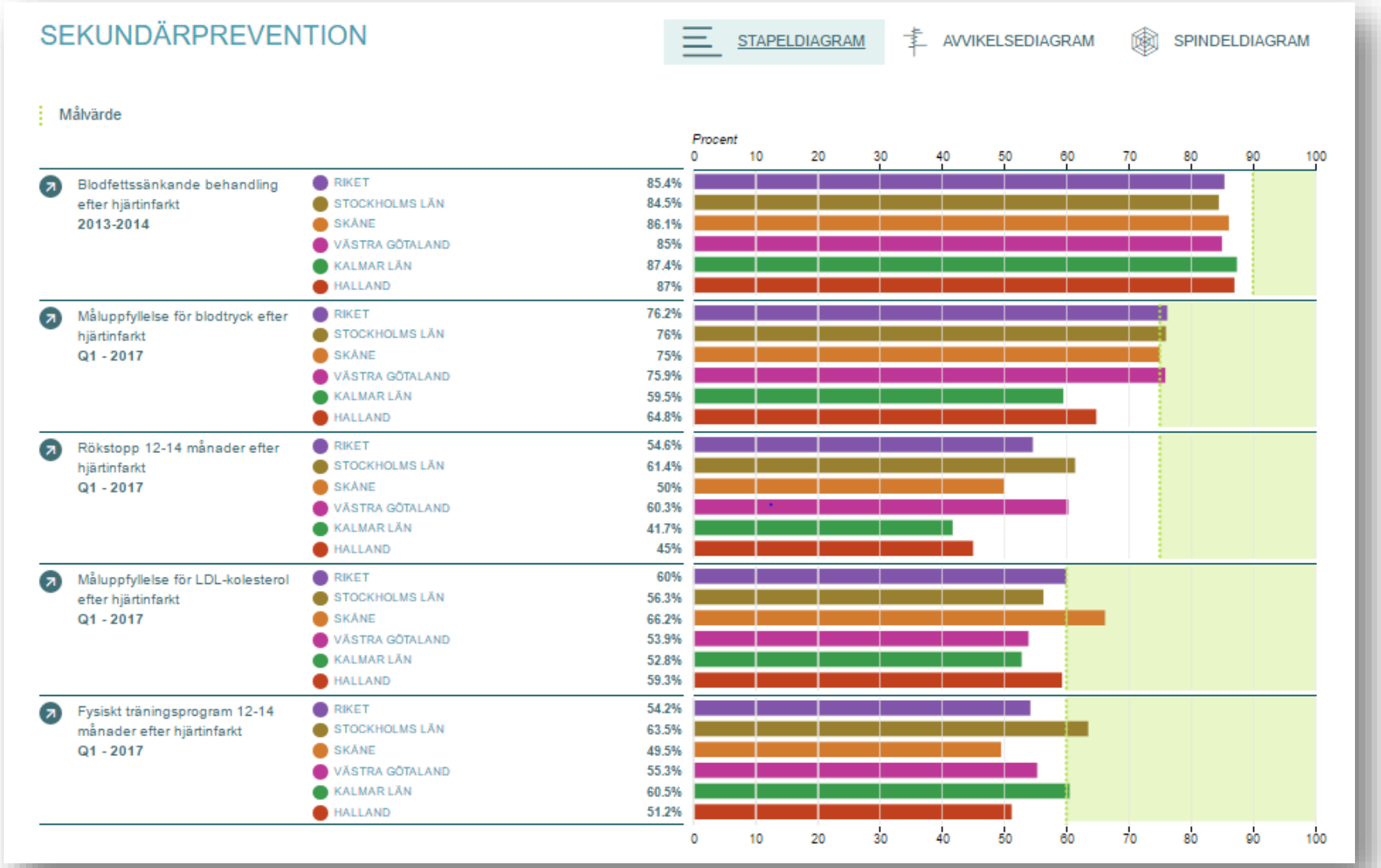
Digital-reports consisting of subsets of indicators based on news, diagnosis, macro-reports or regional reports

Swedish Association of Local Authorities and Regions



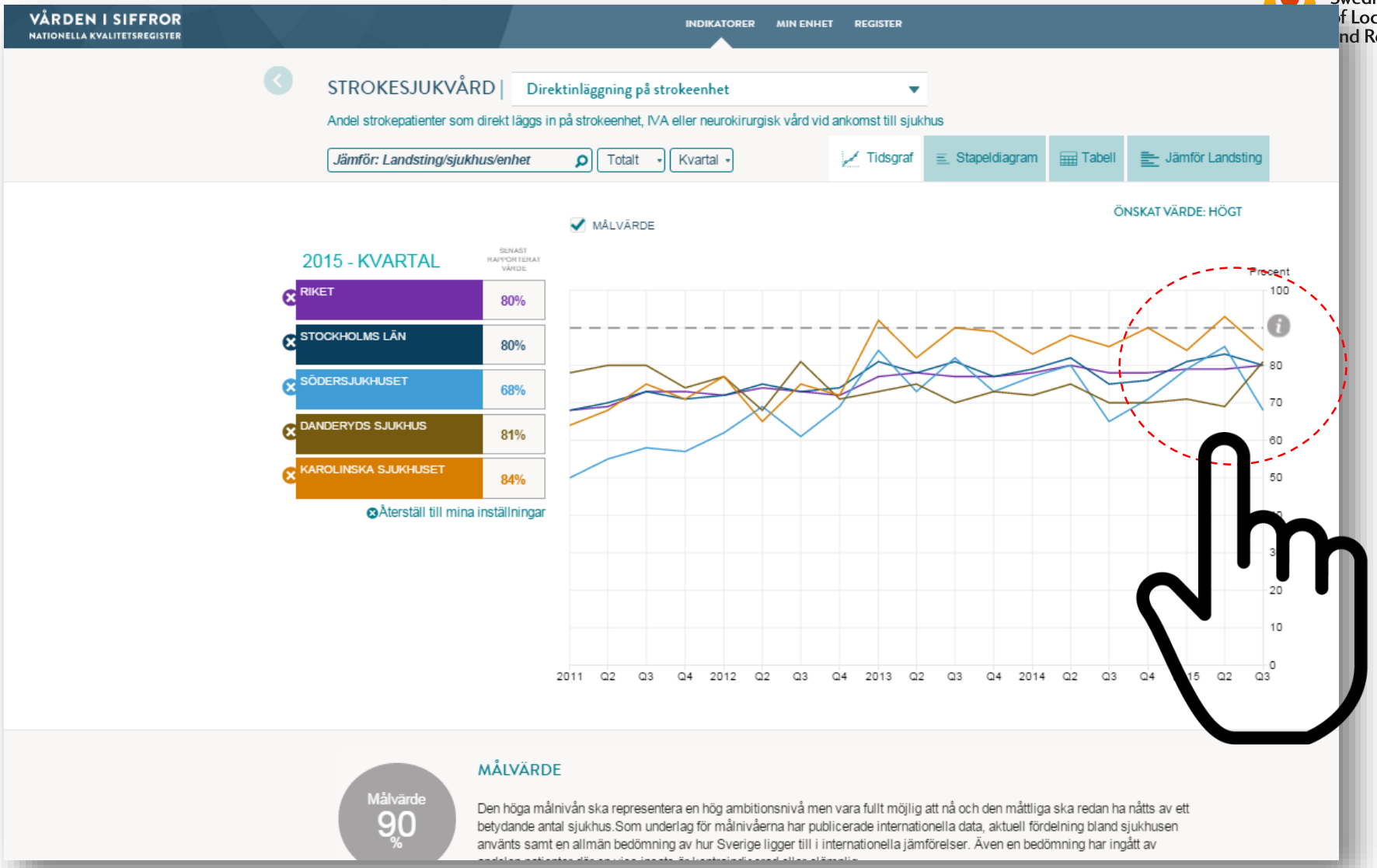
Why?

- Possible to screen several indicators and units at the same time
- Clustered in the same graphical representation
- *Also: how is my unit preforming in comparison to the national median or national goals?*



Why?

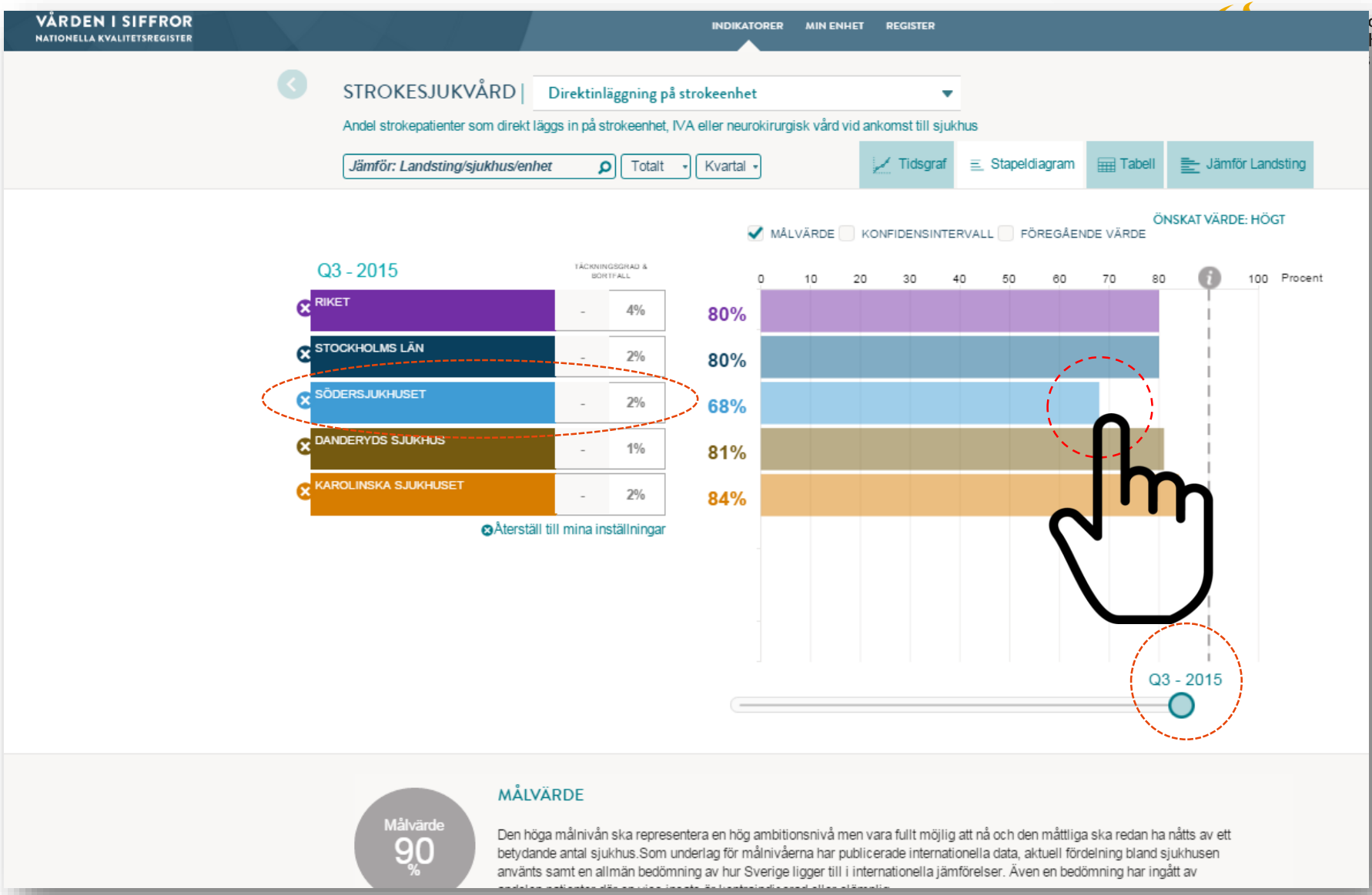
- Easy illustration of variation between units over time
- Also displaying national goals as an additional benchmark
- *Analysis of causality and action has to be added – of course…☺*



Why?

- Monthly or quarterly data per unit/clinic
- Easy to find the units where data deviates (also an important area for development)

- *Why are the sub-performers data different?*
- *Bad data, different population, or difference in medical practice?*



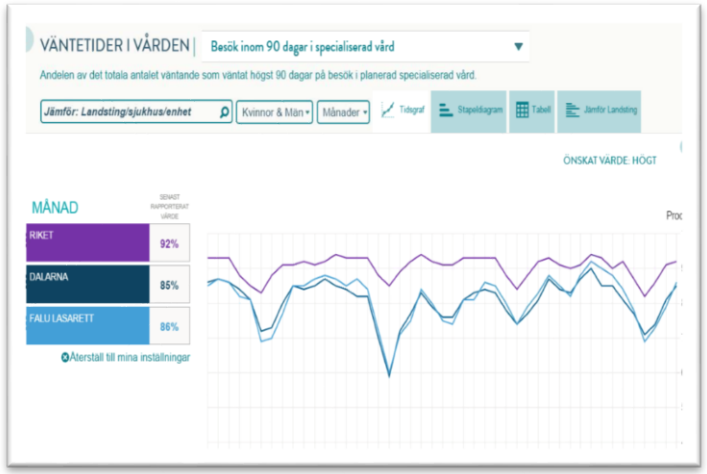
National technical standards makes it possible to transfer vast amounts of data between systems

Swedish Association of Local Authorities and Regions

50 sourcesystems
500 indicators (so far…)

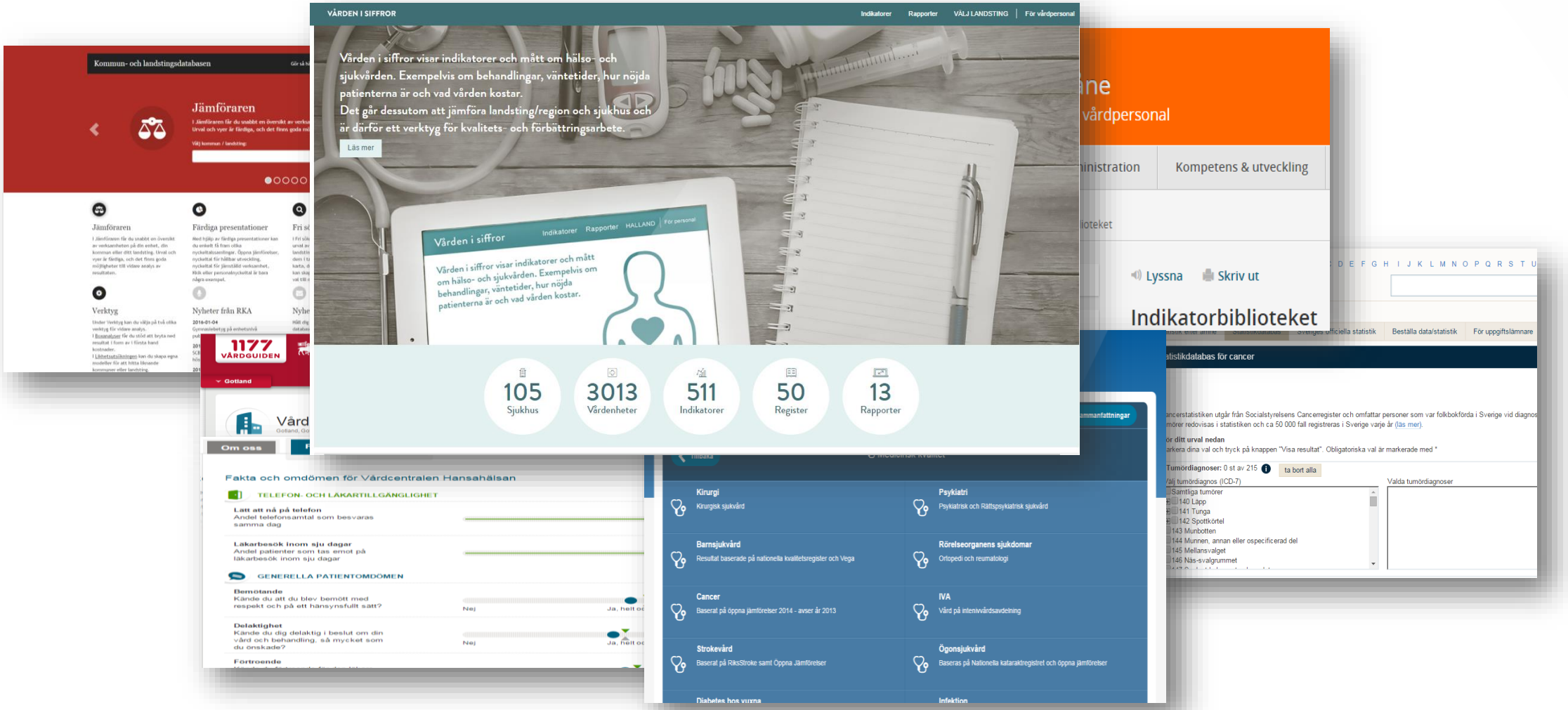
National standard for healthcare indicators (API)

All presented on one graphical user interface (GUI)



”Vården i siffror” is just one data consuming-system
Standardized data opens up for all consuming systems

Swedish Association of Local Authorities and Regions



What do we know now?

How familiar are you with Swedish eHealth (= what we do and what we plan)?

1 = Novis (nothing at all); …; 5 = Expert (know everything)

How familiar are we with Finnish eHealth (= what they do and what they plan)?

1 = Novis (nothing at all); …; 5 = Expert (know everything)

Swedish Association of Local Authorities and Regions

Next step together

- Have the day and the content/subjects been what you expected?
- Are there areas where we can interact continuously?
- How could we arrange for continued experience exchange?