

Using Indicators to Compare Quality and Efficiency

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The presentation

National Health Care Registries

National Comparisons using
indicators

Swedish Health Care

- The Swedish health care system is mainly public owned and financed by taxes
- Sweden has a decentralized health care system with 20 county councils and one municipality with a high degree of autonomy
- The county councils both finance and manage health care
- The government stipulates the laws on health care

The Swedish Health Care system

- Costs – about 9.5 % of the GDP (just above the average of the OECD countries)
- An old and healthy population
- Equality and quality in health care are good in an international context
- Access and patients choice is still not as good when compared to other OECD countries

National Health Care Registries

1. Health data registers (at the NBHW)

2. Health Care Quality Registers
managed by professional groups
and the county councils.



Health Data Registers

- Cancer Register (1958)
 - Medical Birth Register (1973)
 - National Patient Register (1987)
 - Prescribed Drug Register (2005)
 - Dental Health Register (2008)
-
- Cause of Death Register (1749)
 - Social Services Registers

Health Data Registers – Characteristics

- Total population, not a sample
- Personal identity number
- Not collected for a specific research question or purpose
- No consent required
- No right to be deleted

Learn more: www.socialstyrelsen.se/statistics

Health Data Registers

- Statistics
- Research in the Health and Health Care area
- Quality measurement
- Not for supervision!

Health Data Registers – The National Patient Register

- 1.5 million discharges from in-patient care each year, 1987-2012.
- 10 million visits to specialised out-patient care each year.
- Codes for diagnosis, procedures and injuries
- Good coverage and completeness but few variables

National Health Care Quality Registries

- A system of national health care quality registries has been established in the Swedish health and medical services in the last decades.
- There are about **108 registries** and six register centres that receive central funding in Sweden.

Definition of Quality Registers

- A national quality register contains individualized data concerning patient problems/diagnoses, medical interventions/treatments, and outcomes within all healthcare production.
- It is annually monitored and approved for financial support by an Executive Committee.

National Health Care Quality Registries 2012 – 2016, implementing a new strategy for development and funding

- "The Goldmine in Swedish Health Care" 2010
- Agreement between the government and the county councils
- 35 million Euros per year 2012 – 2016
- To make the registers more used for improvement, evaluation and research
- Assigns an important role to the registers



National Health Care Quality Registries 2012 – 2016, implementing a new strategy for development and funding

- 108 registers
- Six regional centers serve
- Registers are now certified
- Validation projects
- Stronger demands for data quality
- Research policy
- A National Register Service at the NBHW



The Philosophy

- Registries are for learning and quality improvement only - not for supervision
- The professional groups themselves build and maintain these registries
- Patient data can be aggregated and used in different ways and on different levels in the health care system, but usefulness in the clinic is a prerequisite
- Focus improvement potential and learn to analyse your own data over time
- In beginning - tone down comparison between units (doctors, clinics, hospitals)

Health Care Quality Registers

Examples

- Children (Perinatal, Childhood obesity)
- Cardiovascular diseases (Cardio intensive care, Stroke, Heart failure, PCI, Heart surgery)
- Diabetes
- Musculoskeletal (Hip fracture, Knee arthroplasty, Hip arthroplasty, Rheumatoid arthritis)
- Cancer, many
- Psychiatric diseases (Bipolar, Psychosis, Eating disorders, ADHD)

Health Data Registers

- Personal Data Act
 - Personuppgiftslagen (1998:204)

In national registers:

- Health Data Register Act
 - “Hälsodatalagen” (1998:543)

In research:

- Act Concerning the Ethical Review of Research Involving Humans (“Ethical Review Act”)
 - “Etikprövningslagen” (2003:460)

National data sources in Sweden

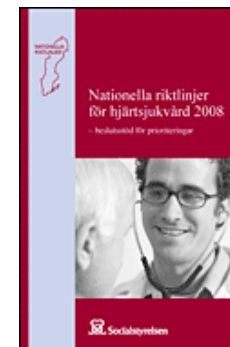
- Individual case data – all inpatients and physician visits in the National Patient Register
- National registers on Cause of deaths, Cancer cases, Births and all Prescribed drugs
- National Quality Registers (78 with available data)
- Case-costing data– national database
- Waiting list database, patient satisfaction surveys
- National DRG-system - NordDRG

A National Strategy for Knowledge management of Good Care



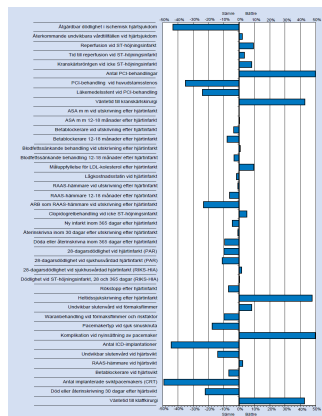
Nationwide follow-up,
open comparison,
evaluation & supervision

Systematic reviews of
evidence-based
knowledge



Regulations,
National Guidelines & priorities

Follow-up & analysis at
local & regional levels

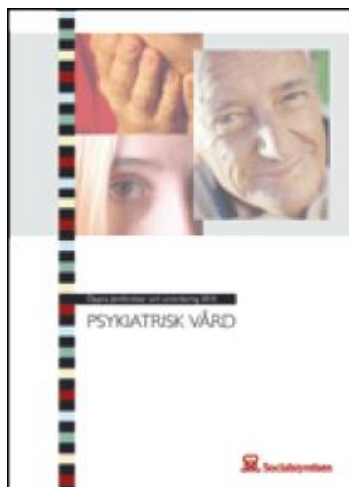
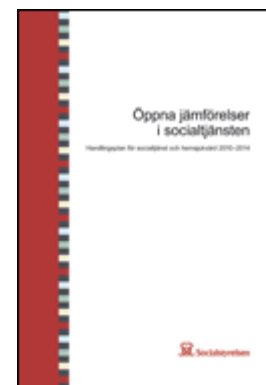


- Evidencebased
- Safe
- Patientcentered
- Timely
- Equitable
- Efficient

Local and regional management
& systematic work on improvement



Public reporting in Sweden



Performance Assessments to national Guidelines (Heart care, Stroke, Diabetes Psychiatry and Cancer)

↓
Health Care sector annual, "Open Comparisons"

↓
Social sector:
Children and Youth,
Economical support,
Care for elderly,
Care for disabled and dysfunctional,
Abuse and dependence

Aims

- To encourage the providers and management of health care to improve performance
- Report on the achievement of the counties in terms of quality and efficiency for better transparency
- To improve the possibility to audit and evaluate

... in both Health care and the Social sector

The strategy

- Since most of the health care in Sweden is publicly financed we need to find ways to continuously evaluate the health care system
- One way to evaluate if the system is efficient and equal is to compare performance from many different perspectives on international, national and local levels.

Two paths:

1. Annual report - Open Comparisons of Efficiency and Quality
2. Comparisons and Assessments linked to National Guidelines

Open comparisons of Efficiency and Quality



- The work started in 2006. Seven reports have been published.
- A joint project between the National Board of Health and Welfare, The Swedish Association of Local Authorities and Regions and the County Councils
- The comparisons are open and based on performance indicators published on county and hospital level on a yearly basis
- The indicators reflect many perspectives of health care and will in the future cover all sectors of health care
- The work is one part of a national strategy to improve efficiency and equality in health care

Perspectives of Quality

1. Medical quality
 - Evidence based care
 - Clinical results
 - Safe care
 - Vaccination programs etc
2. Access
3. Patients experience
4. Costs and efficiency

Report Published annually

- 169 indicators 2012
- The counties are ranked per indicator
- Ranking per indicator in colors (place 1-7(green), 8-14 (yellow), 15-21 (red))
- Trends for all indicators (if possible)
- Socio-economic stratification
- New website for interactive use

(<http://www.socialstyrelsen.se/oppnajakamforelser>)

Learn more: www.socialstyrelsen.se/english

To stress

- The indicators have been chosen to reflect large diagnosis groups in health care (eg. stroke, heart diseases, hip replacement, cancer etc)
- All data emerges from existent data sources
- Still a lack of data in psychiatric care and primary care
- No analyses of differences between the counties in the report
- No total ranking of the indicators!

NOT a basis for making the choice of medical provider

Presentations

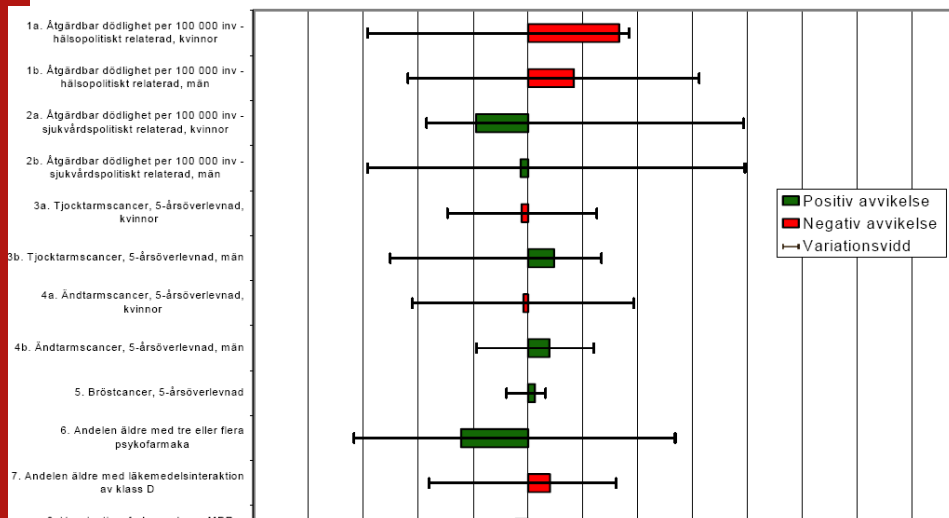


Diagram D:9. Kostnad per vårdkontakt i primärvård, viktade kontakter. Kronor.

Källa: Sveriges Kommuner och Landsting.

Uppföljnings- perspektiv	Indikator	Position	Procentuell	Faktiskt värde		Högsta värde	Lägsta värde	Variations- vidd
		1 till 7	avvikelse	Stockholm	Riksnitt			
		8 till 14	från riksnitt					
		15 till 21						
A Medicinska resultat								
Åtgärdbar dödlighet	1a. Åtgärdbar dödlighet per 100 000 inv - hälsopolitiskt relaterad, kvinnor		16,6	31,1	26,7	31,6	18,9	47,7
	1b. Åtgärdbar dödlighet per 100 000 inv - hälsopolitiskt relaterad, män		8,4	50,1	46,2	60,7	36,1	53
	2a. Åtgärdbar dödlighet per 100 000 inv - sjukvårdspolitiskt relaterad, kvinnor		-9,4	24	26,5	36,9	21,6	57,6
	2b. Åtgärdbar dödlighet per 100 000 inv - sjukvårdspolitiskt relaterad, män		-1,3	37,2	37,7	52,6	26,7	68,8
Överlevnad vid cancersjukdom	3a. Tjocktarmscancer, 5-årsöverlevnad, kvinnor		-1,2	59,9	60,6	68,2	51,7	27,1
	3b. Tjocktarmscancer, 5-årsöverlevnad, män		4,7	59,6	56,9	64,5	42,6	38,6
	4a. Ändtarmscancer, 5-årsöverlevnad, kvinnor		-0,8	60,3	60,8	72,5	48	40,4
	4b. Ändtarmscancer, 5-årsöverlevnad, män		3,9	58,8	56,6	63,4	51,3	21,5
	5. Bröstcancer, 5-årsöverlevnad		1,3	88,1	87	89,8	83,6	7,1
Läkemedelsanvändning	6. Andelen äldre med tre eller flera psykofarmaka		-12,2	3,6	4,1	5,2	2,8	56,5
	7. Andelen äldre med läkemedelsinteraktion av klass D		4	5,2	5	5,8	4,1	34
Vaccinationer	8. Vaccinationsfrekvens barn, MPR = mässling, påssjuka, röda hund		-2,2	92,4	94,5	97	92,4	4,8
	9. Vaccinationsfrekvens av äldre > 65 - influensa		13	61	54	68	35	61,1
Förlösningssvår, mödrhälsovård	10. Dödfödda per 1 000 födda		-5,1	3,35	3,53	4,75	1,89	81,2
	11. Neonatal dödlighet - döda per 1 000 levande födda		-4,8	2,17	2,28	3,44	1,31	93,5
	12. Andel barn med Apgar-poäng under 7		-7	1,06	1,14	1,64	0,64	87,9
	13. Andel perinealbristningar grad III och IV, vaginal förlösning		27,8	5,05	3,95	5,15	2,59	64,8
	14. Andel sena aborter		8	1,35	1,25	1,54	0,8	59,1
Diabetesvård	15. Andel som uppnår mål för HbA1c - primärvård		-0,9	54,4	54,9	58,3	42,9	28,1
	16. Andel som uppnår mål för blodtryck - primärvård		0,8	35,7	35,4	40,7	26	41,5
	17. Andel öppnibottenfotografierade - medicinklinik		2,2	94	92	98,6	81,6	18,5
Stroke sjukvård	18a. 28-dagars dödlighet efter stroke, kvinnor		-7,3	21,7	23,4	27,4	16,8	45,2
	18b. 28-dagars dödlighet efter stroke, män		-3,5	22,2	23	26,7	18	37,7
	19. ADL-förmåga 3 månader efter insjuknande		-6,3	20,7	22,1	39,3	17,4	99,1
	20a. Andel patienter vårdade vid strokeenhet, kvinnor		-10,9	68,7	77,1	95	50,8	57,3
	20b. Andel patienter vårdade vid strokeenhet, män		-1,9	77,9	79,4	97,1	54	54,3

Uppföljnings- perspektiv	Indikator	Riks- snitt		Blekinge		Dalarna		Gotland		Gävleborg		Halland		Jämtland		Jönköping	
		Position	Faktiskt värde	Position	Faktiskt värde	Position	Faktiskt värde	Position	Faktiskt värde	Position	Faktiskt värde	Position	Faktiskt värde	Position	Faktiskt värde	Position	Faktiskt värde
		16,7	8 814	10,7	8 814	10,7	8 814	10,7	8 814	10,7	8 814	10,7	8 814	10,7	8 814	10,7	8 814
		15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1	15 892,1
A Medicinska resultat																	
Åtgärdbar dödlighet	1a. Åtgärdbar dödlighet per 100 000 inv - hälsopolitiskt relaterad, kvinnor	26,7	23,5	23,7	31	30,7	18,9	25,8	20,6								
	1b. Åtgärdbar dödlighet per 100 000 inv - hälsopolitiskt relaterad, män	46,2	50,6	40,9	60,7	49,4	44,1	40,1	41,8								
	2a. Åtgärdbar dödlighet per 100 000 inv - sjukvårdspolitiskt relaterad, kvinnor	26,5	24,6	24,3	28,5	36,9	22,3	29,8	27,3								
	2b. Åtgärdbar dödlighet per 100 000 inv - sjukvårdspolitiskt relaterad, män	37,7	36,9	38,5	52,6	43,5	27,3	38,6	43,3								
Överlevnad vid cancersjukdom	3a. Tjocktarmscancer, 5-årsöverlevnad, kvinnor	60,6	58,3	66,7	51,7	65,5	63,5	55	65,3								
	3b. Tjocktarmscancer, 5-årsöverlevnad, män	58,9	58,7	64,5	49,5	58,4	61,6	53,8	51,9								
	4a. Ändtarmscancer, 5-årsöverlevnad, kvinnor	60,8	72,5	64,6	48	68,2	49,1	55,6	65,7								
	4b. Ändtarmscancer, 5-årsöverlevnad, män	58,6	59,6	57,7	61	66,6	59,9	51,3	54								
	5. Bröstcancer, 5-årsöverlevnad	87	85,5	87	83,6	87,4	86,9	88,7	86								
Läkemedels- användning	6. Andelen äldre med tre eller flera psykofarmaka	4,1	4	3,7	2,9	3,8	4,7	3,3	4,5								
	7. Andelen äldre med läkemedelsinteraktion av klass D	5	4	5,1	5,8	4,6	4,9	4,1	4,5								
Vaccination	8. Vaccinationsfrekvens barn, MPR = mässling, påssjuka, röda hund	94,5	96	95,1	95,5	95,3	95,8	93,6	96,2								
	9. Vaccinationsfrekvens av äldre > 65 - influensa	54	44	45	-	43	64	45	68								
Förlösningssvår, mödrhälsovård	10. Dödfödda per 1 000 födda	3,53	2,4	4,15	4,75	3,54	2,35	1,89	2,85								
	11. Neonatal dödlighet - döda per 1 000 levande födda	2,28	3,1	3,38	2,98	2,02	1,31	1,97	3,08								
	12. Andel barn med Apgar-poäng under 7	1,14	1,4	1,24	1,38	1,35	0,64	1,19	1,07								

28-day case fatality rate for first-ever stroke, 2009–2011. Hospitalised patients

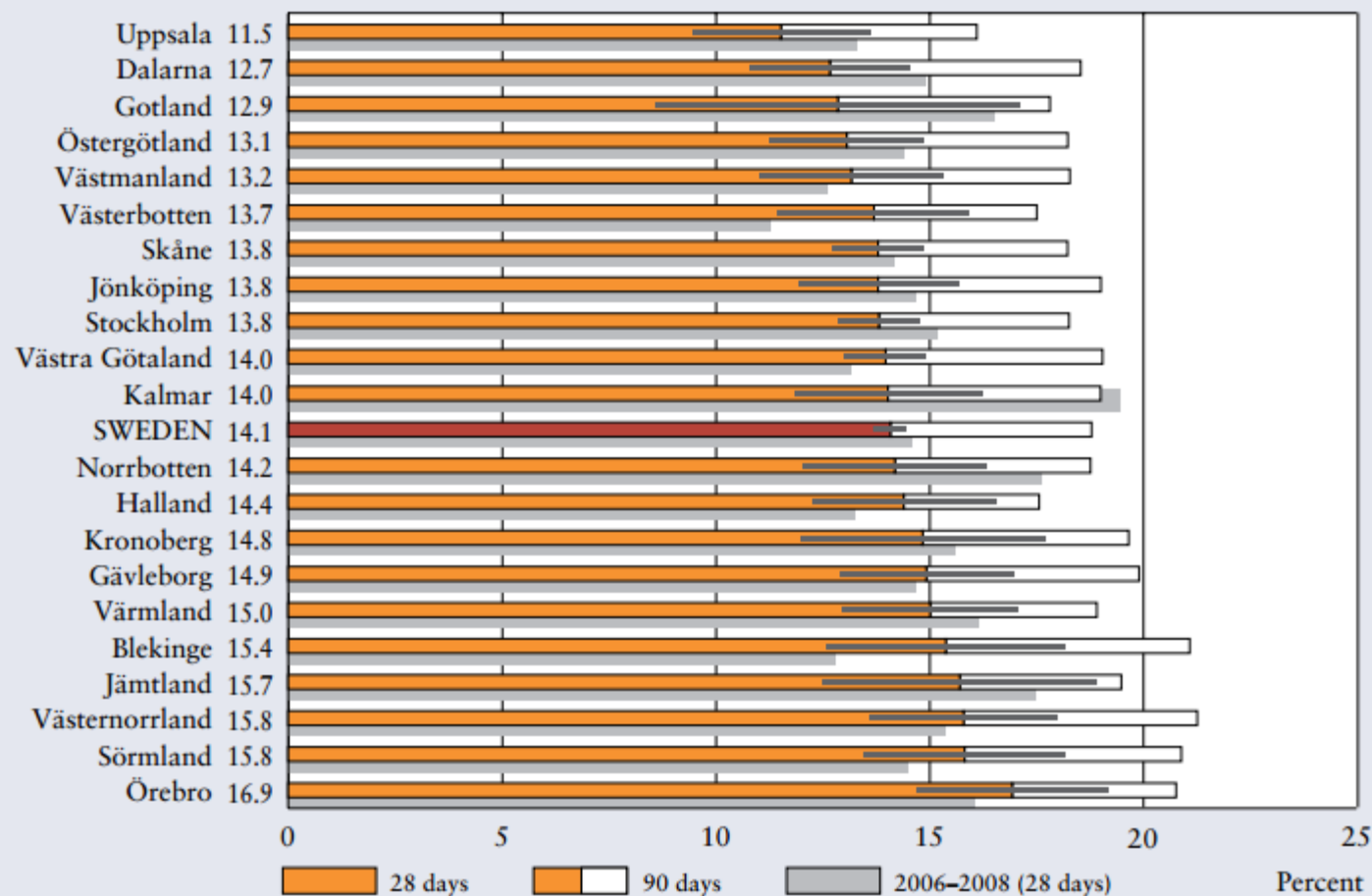


Figure 102
Men

28-day and 90-day case fatality rate for first-ever stroke, 2009–2011. Hospitalised patients. Age-standardised.

Source: National Patient Register and Cause of Death Register, National Board of Health and Welfare

28-day case fatality rate for first-ever stroke, 2009–2011. Hospital comparison

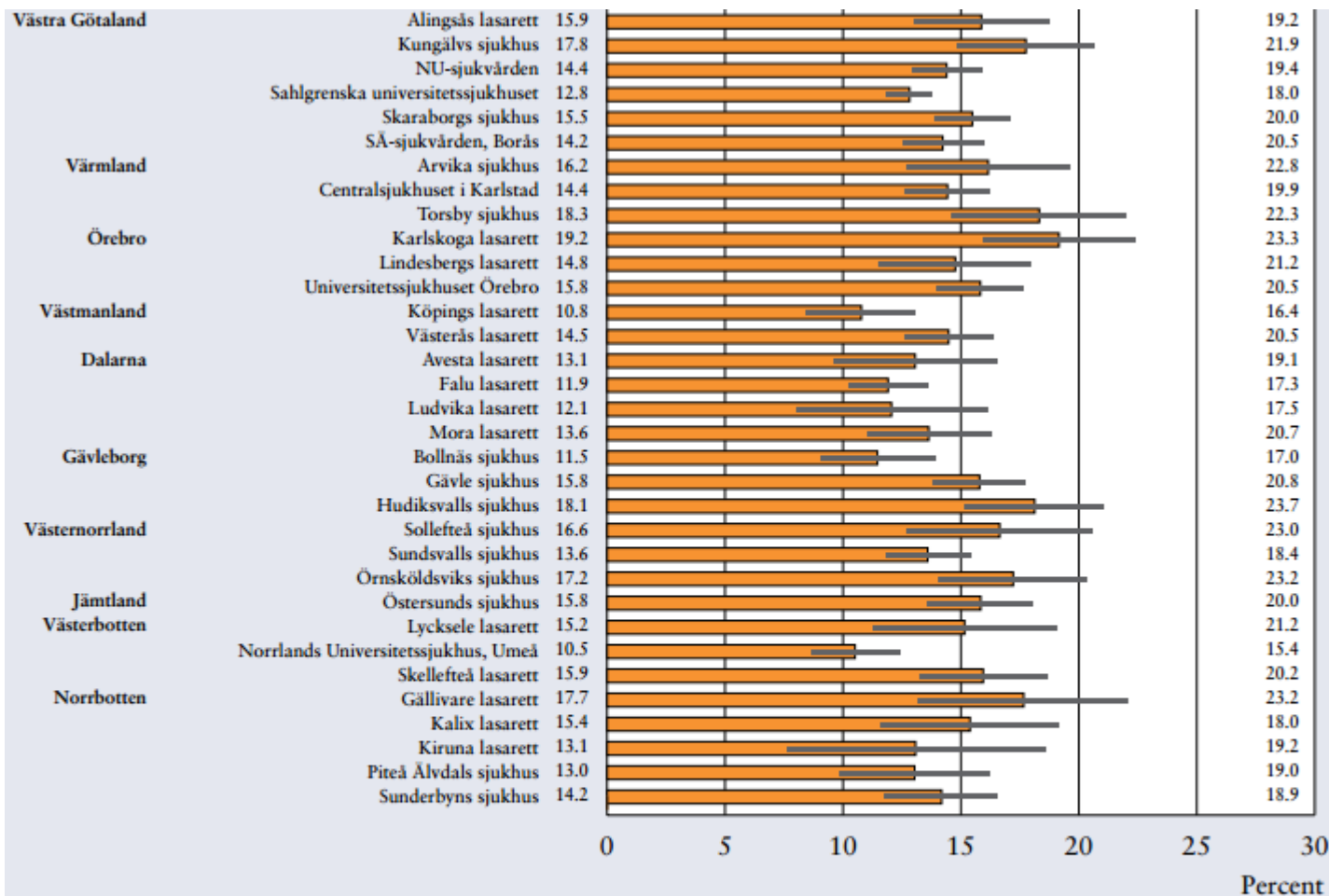


Figure 102
Hospitals

28-day case fatality rate for first-ever stroke,
2009–2011. Hospitalised patients. Age-standardised.

Source: National Patient Register and Cause of Death Register, National Board of Health and Welfare

Development over time

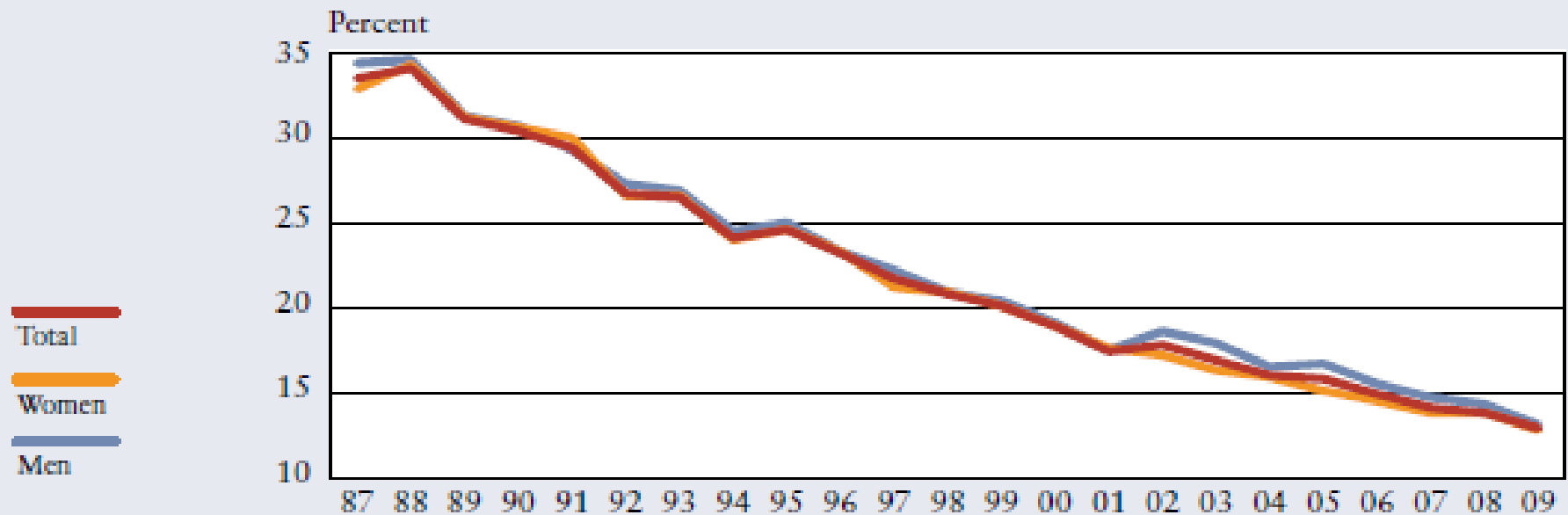


Figure 65
Sweden

28-day case fatality rate for myocardial infarction.
Hospitalised patients. Age-standardised.

Source: National Patient Register and Cause of Death Register, National Board of Health and Welfare

Development over time

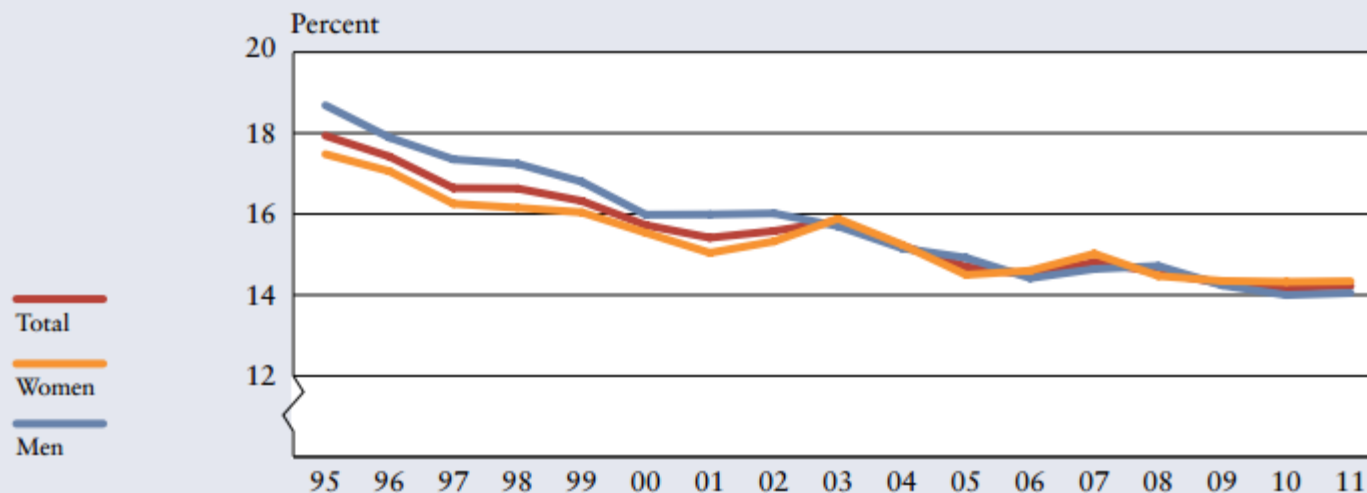


Figure 102
Sweden

28-day and case fatality rate for first-ever stroke.
Hospitalised patients. Age-standardised.

Source: National Patient Register and Cause of Death Register, National Board of Health and Welfare

Socio- Economic data

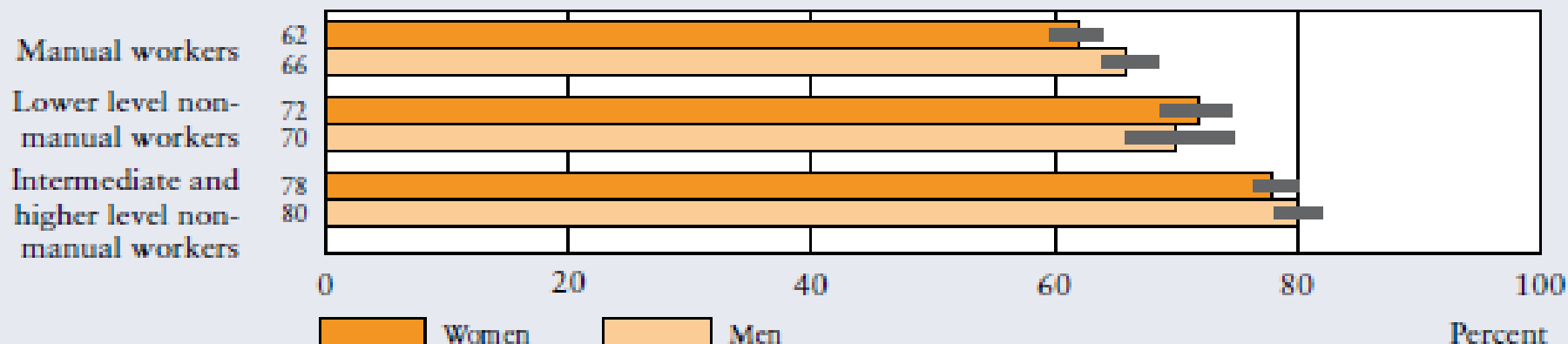


Figure 2A

Percentage of the population age 16–84 that rated their general health status as good or very good, 2007–2010. Age-standardised.

Source: Swedish National Institute of Public Health

Has the work had any impact?

- Yes, most of the measured indicators have improved over time
- High status to be published in the report, a change of thinking – has improved transparency
- Focus of quality - Quality issues are much more discussed and debated on all political levels
- Favorable press – high impact on national and local press over 80 articles in 2011
- All counties have an organization for working with regional comparisons and how to use the results

Important factors when published

- Cooperation NBHW and the Association of Local Authorities and Regions (SALAR)
- County Councils had the results in advance and held their own press conferences
- The message
- No “hidden comparisons”

Principles when displaying data

- Proportions, incidence measures, averages, medians, ratios?
- Age standardisation
- Sex stratification
- Socio economic stratification
- Confidence intervals for total populations
- County and/or hospital, accountability perspective and a well known denominator

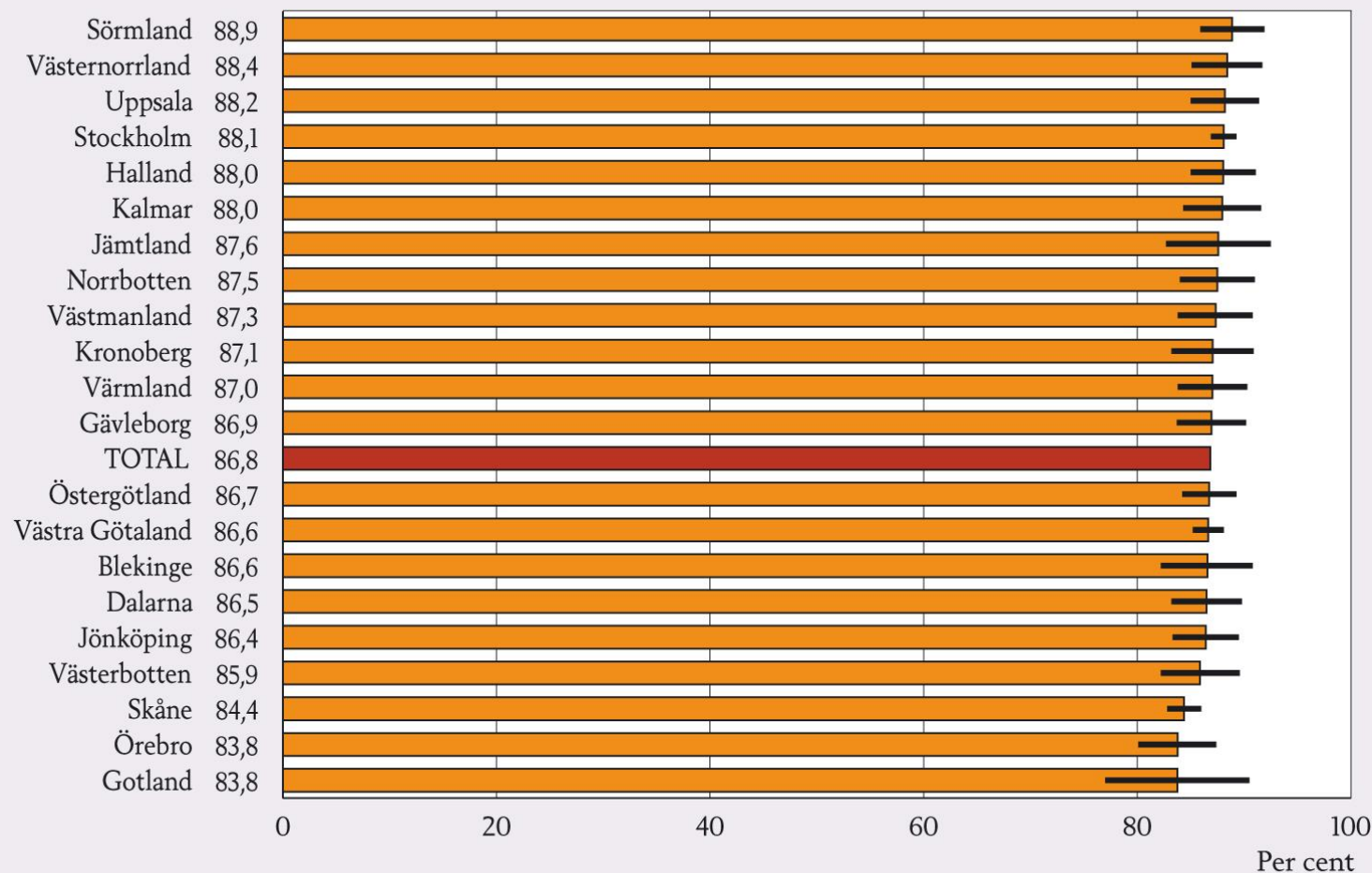
The comparisons

- Hospital comparisons. Case-mix issues.
How handle diseases outside these?
- Accountability perspective:
 - Provider trusts, regional governments responsible for the health care in an area.
 - Clinical indicators just distributed on regions of the domicile of patients
- Sex stratification
- Socio economic stratification or comparisons

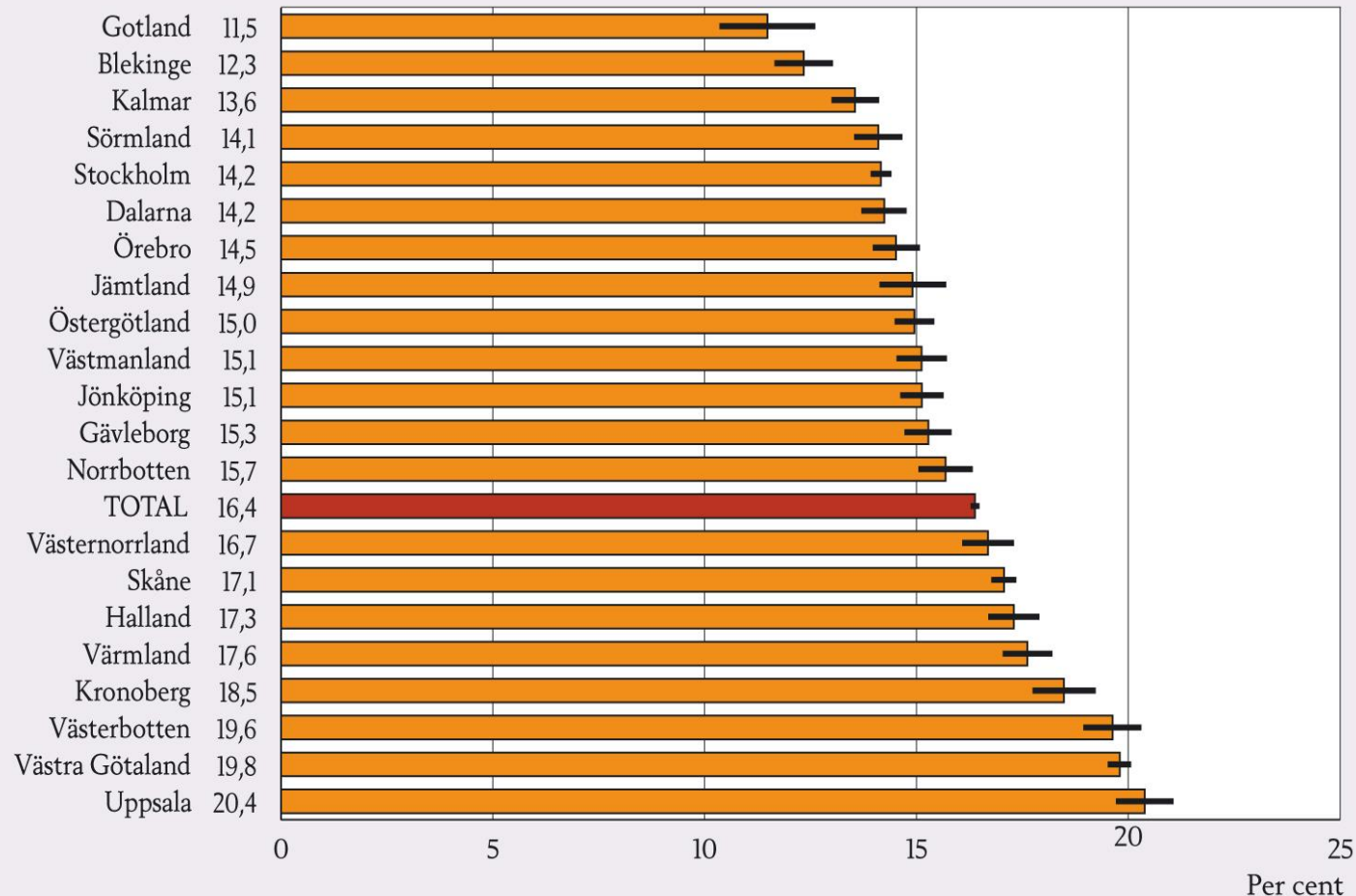
A:36 Hospitalised first-time stroke – 28-day case fatality rate

Measure	Percentage of patients who were hospitalised and who died within 28 days after first-time stroke in 2005–2007				
Description	<p>28-day case fatality rate among patients hospitalised for first-time stroke. Stroke refers to cerebral haemorrhage, cerebral infarction or unspecified stroke. A first-time stroke is one that occurs when the patient has not been diagnosed with a stroke for the previous seven years of the Patient Register.</p> <p>All care events associated with a diagnosis of stroke in 2005–2007 in the inpatient section of the Patient Register during the previous 28 days were assigned to a stroke case. The 28-day case fatality rate is measured on the basis of the Cause of Death Register, which contains data for everyone who has died.</p> <p><i>Numerator:</i> Number of first-time stroke patients who were hospitalised and who died within 28 days after stroke</p> <p><i>Denominator:</i> All patients who were hospitalised after first-time stroke in 2005–2007</p>				
Method of measurement	<p>The percentage of deaths within 28 days after stroke was age-standardised based on all stroke cases in 2000 as the standard population. The same standard population was used for women and men.</p> <table border="1"><thead><tr><th>Diagnosis</th><th>ICD-10 code</th></tr></thead><tbody><tr><td>Stroke</td><td>I61, I63, I64</td></tr></tbody></table> <p>Patients were assigned to their region of domicile.</p>	Diagnosis	ICD-10 code	Stroke	I61, I63, I64
Diagnosis	ICD-10 code				
Stroke	I61, I63, I64				
Data sources	Patient Register and Cause of Death Register, Swedish National Board of Health and Welfare				
Sources of error	See Indicator A:35				

5-years survival in breast cancer (1999-2005)



Elderly (>80 years) with 10 or more drugs (October to December 2006)



National indicatorbased evaluations

Cardiac Care 2009

Stroke, 2011

Diabetes, 2011

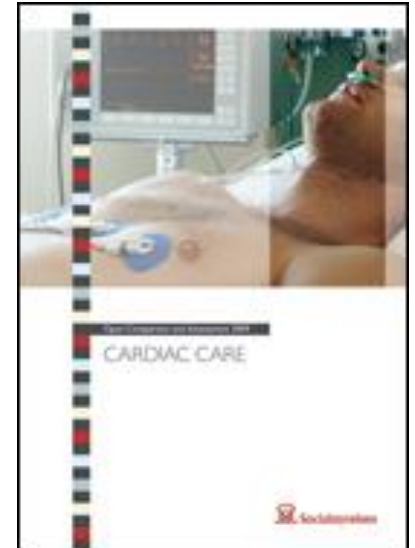
Cancer (prostate, colorectal, breast), 2013

Depression and schizophrenia, 2013

Dental care, 2013

Musculo-skeletal diseases, 2014

Dementia, 2014



Learn more: www.socialstyrelsen.se/english

National Guidelines

Provide guidelines for the health care of patients with severe chronic diseases with high costs to society

Focus of the guidelines

- Delimited by areas where there are special requirements for knowledge management based on
 - differences in practice
 - high costs and uncertainty about benefits
 - ethically difficult questions
 - disagreement within the profession

Purpose

- Support priority setting in the county councils
- Contribute to the efficient use of health care resources, distributed according to need, and governed by systematic and transparent priority setting
- Evidenced based practice in health care
- Introduction of new technology
- Support county councils planning and working with local health care programs

National guidelines

Published:

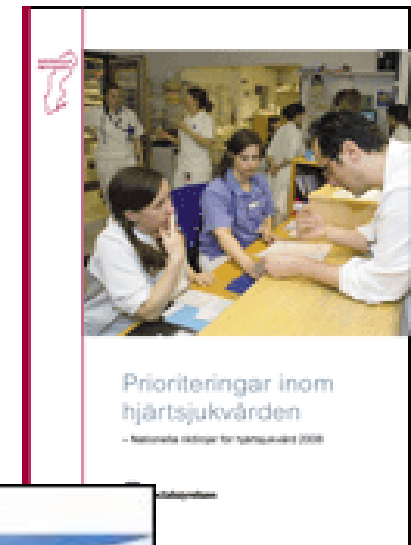
- Abuse
- Stroke
- Cardiac care
- Asthma and COPD
- Cancer (prostate, colorectal and breast cancer)
- Depression
- Schizophrenia
- Dementia
- Diabetes
- Stroke
- Disease prevention
- Musculo-skeletal diseases
- Lungcancer
- Dental care
- Palliative care

Content of guidelines

- Evidence based reviews on medicine and health economics
- Recommendations
 - priorities (1 to 10)
 - interventions that should not be part of routine health care ("not to do" or need research)

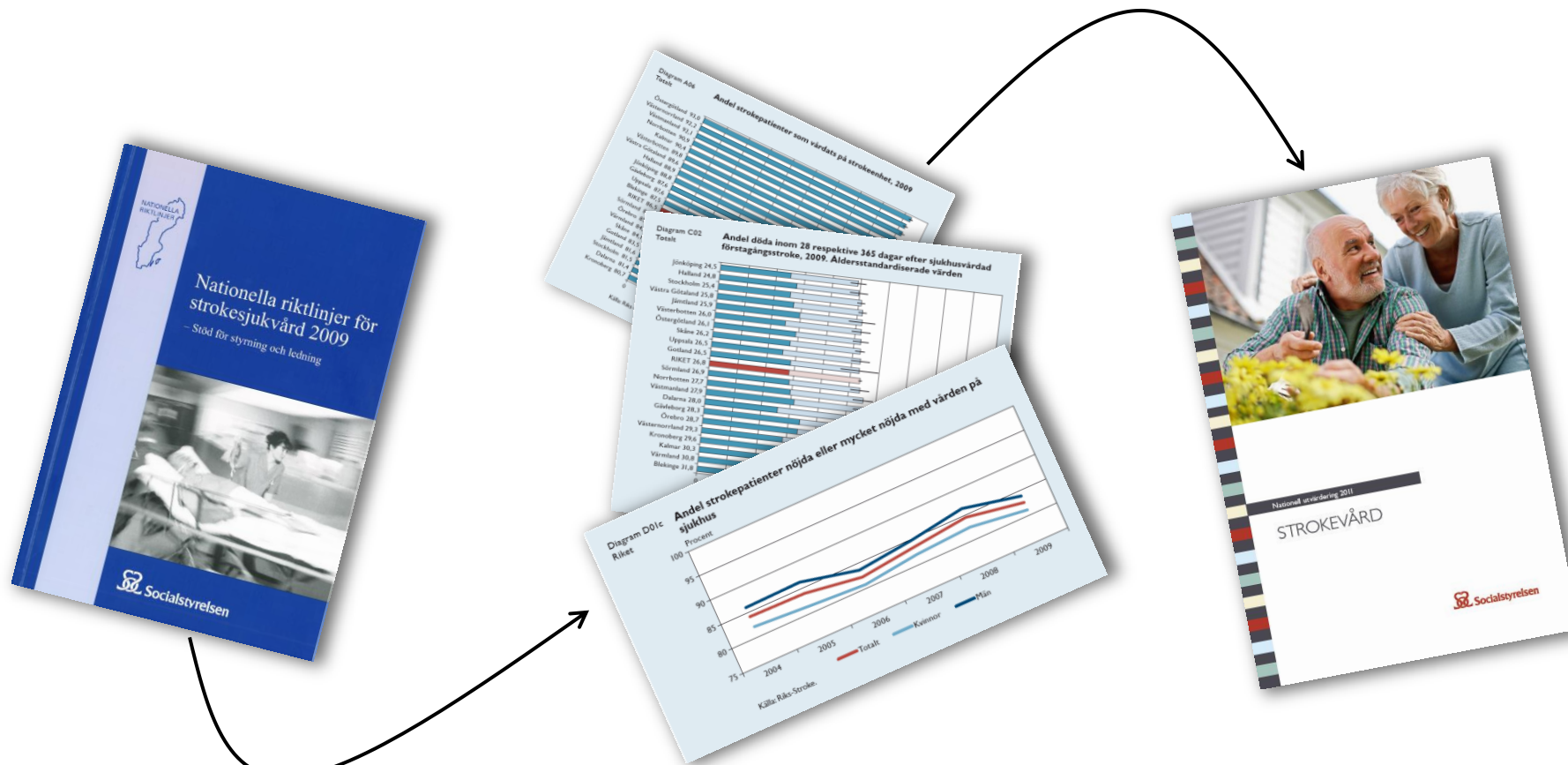
1	2	3	4	5	6	7	8	9	10	Icke-göra	FoU
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-and Quality indicators

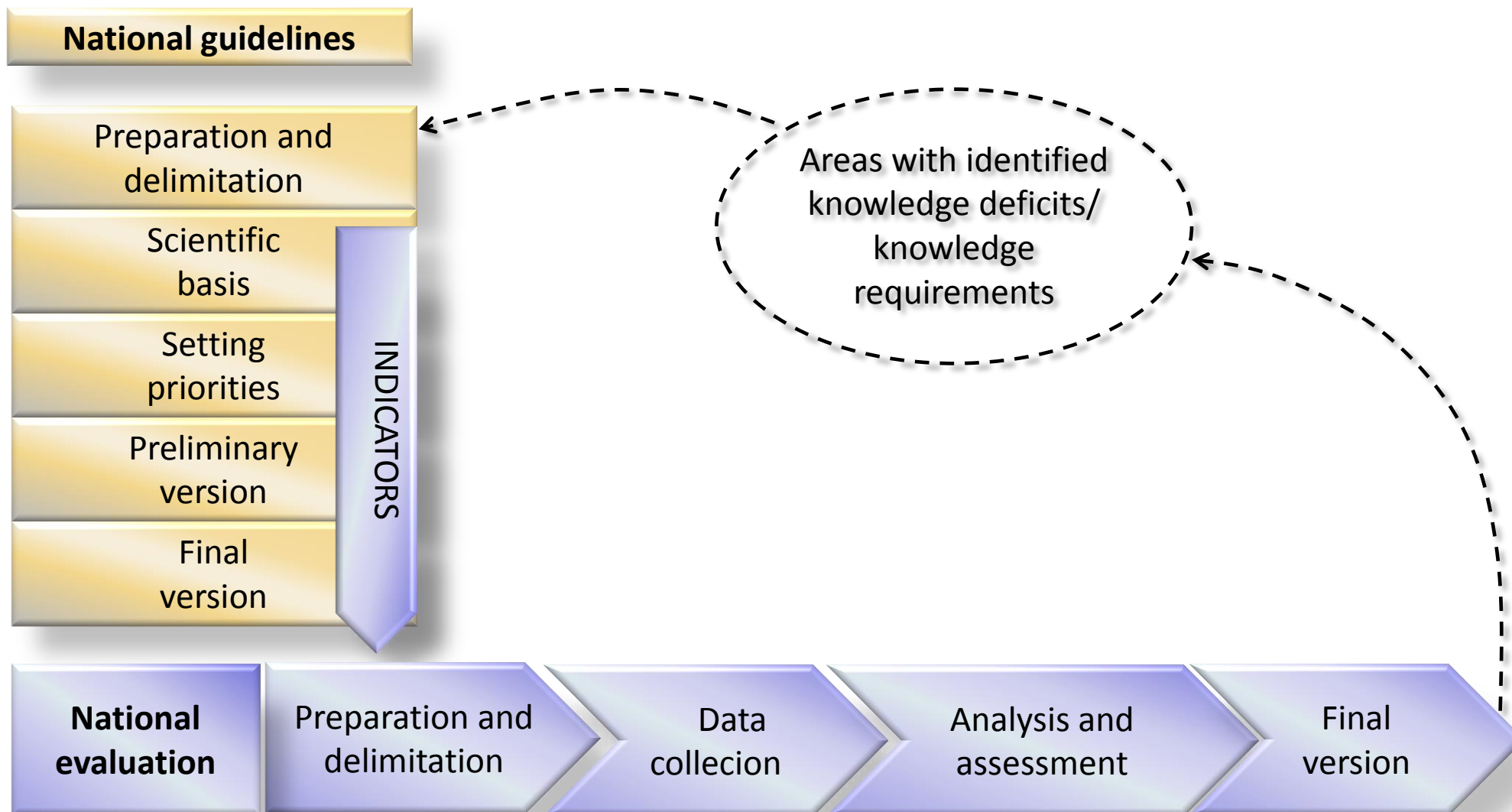


Results and recommendations

From guideline to evaluation



National guidelines and National evaluation



National evaluation: Cardiac care 2009

- To illuminate the differences in processes and results
- To evaluate the Cardiac care in Sweden departing from:
 - the six criteria for good care and
 - the National guidelines
- To evaluate whether the results relating to mortality and relapse into illness reach the expectations

NOT a basis for making the choice of medical provider

National evaluation: Cardiac care 2009

Register data used:

- The National Patient Register
- The Cause of Death Register
- The Prescribed Drug Register

- Cardiac Intensive Care
- Heart Failure Register
- Cardiac Surgery Register
- Angiography and Angioplasty
- Pacemaker Register

The 45 quality indicators from the National Guidelines for Cardiac Care

- General indicators (2)
- Care and treatment at hospitals – coronary artery disease (7)
- Medication treatment - coronary artery disease (12)
- Mortality and relapse into illness - coronary artery disease (9)
- Other - coronary artery disease (2)
- Rhythm disorders (5)
- Cardiac insufficiency (5)
- Heart/valvular disorder,
heart defects in children and youths (3)

Examples of indicators

- PCI frequency with different indications
- Waiting times for coronary artery surgery
- Beta-blockers at discharge +12–18 months after myocardial infarction
- Smoking cessation after myocardial infarction
- Full-time sick leave after myocardial infarction
- Avoidable in-patient care in atrial fibrillation
- The number of ICD implantations
- The number of implanted pacemakers for cardiac resynchronisation therapy
- Heart disease mortality for children and young people

Overall Assessment of Quality

- general overview
- variations
- no target levels

Generella indikatorer - hjärtsjukvård	Allmän bedömning	Variationer
Åtgärdbar dödlighet i ischemisk hjärtsjukdom (A1)		
Återkommande undvikbara vårdtillfällen vid hjärtsjukdom (A2)		
Kranskärslssjukdom Vård och behandling vid sjukhus		
Reperfusion vid ST-höjningsinfarkt (B1)		
Tid till reperfusion vid ST-höjningsinfarkt (B2)		
Kranskärslsröntgen vid icke ST-höjningsinfarkt och riskfaktor (B3)		
Antal PCI-behandlingar (B4)		
PCI vid huvudstamsstenos (B5)		
Läkemedelsstent vid PCI (B6)		
Väntetid till kranskärslkirurgi (B7)		
Kranskärslssjukdom - Läkemedelsbehandling		
Blodproppshämmande behandling vid utskrivning efter hjärtinfarkt (B8)		
Blodproppshämmande behandling 12-18 månader efter hjärtinfarkt (B9)		
Betablockerare vid utskrivning efter hjärtinfarkt (B10)		
Betablockerare 12-18 månader efter hjärtinfarkt (B11)		
Blodfettssänkande behandling vid utskrivning efter hjärtinfarkt (B12)		
Blodfettssänkande behandling 12-18 månader efter hjärtinfarkt (B13)		
Målluppfyllelse för LDL-kolesterol efter hjärtinfarkt (B14)		
Lågkostnadsstatin vid hjärtinfarkt (B15)		
RAAS-hämmare vid utskrivning efter hjärtinfarkt (B16)		
RAAS-hämmare 12-18 månader efter hjärtinfarkt (B17)		
ARB som RAAS-hämmare efter hjärtinfarkt (B18)		
Clopidogrelbehandling vid icke ST-höjningsinfarkt (B19)		
Kranskärslssjukdom Dödlighet och återinsjuknande		
Ny infarkt inom 365 dagar efter hjärtinfarkt (B20)		
Återinskrivning inom 30 dagar efter utskrivning efter hjärtinfarkt (B21)		
Död eller återinskrivning inom 365 dagar efter hjärtinfarkt (B22)		
28-dagarsdödlighet vid hjärtinfarkt (B23)		
28-dagarsdödlighet vid sjukhusvårdad hjärtinfarkt (PAR) (B24)		
28-dagarsdödlighet vid sjukhusvårdad hjärtinfarkt (RIKS-HIA) (B25)		
Dödlighet inom 28 och 365 dagar vid ST-höjningsinfarkt (RIKS-HIA) (B26)		
30-dagarsdödlighet vid kranskärslsoperation (B27)		
Reoperation vid kranskärslsoperation (B28)		
Kranskärslssjukdom Övrigt		
Rökstopp efter hjärtinfarkt (B29)		
Heltidssjukskrivning efter hjärtinfarkt (B30)		
Rytmrubbningar		
Undvikbar slutenvård vid förmaksflimmer (C1)		
12-månadersdödlighet vid förmaksflimmer (C2)		

Account of the results: trends and comparisons

Each indicator

Text sections:

- Background and motivation
- Comment on the outcome
- Wrong sources and interpretation problems

Account of the diagram:

- National development as a trend
- Comparison among county councils and hospitals

Diagram B16
Totalt

Andel patienter med RAAS-hämmare vid utskrivning
efter hjärtinfarkt, 2007. Avser patienter ≤ 80 år.

Källa: RIKS-HIA – Nationellt register för hjärtintensivvård

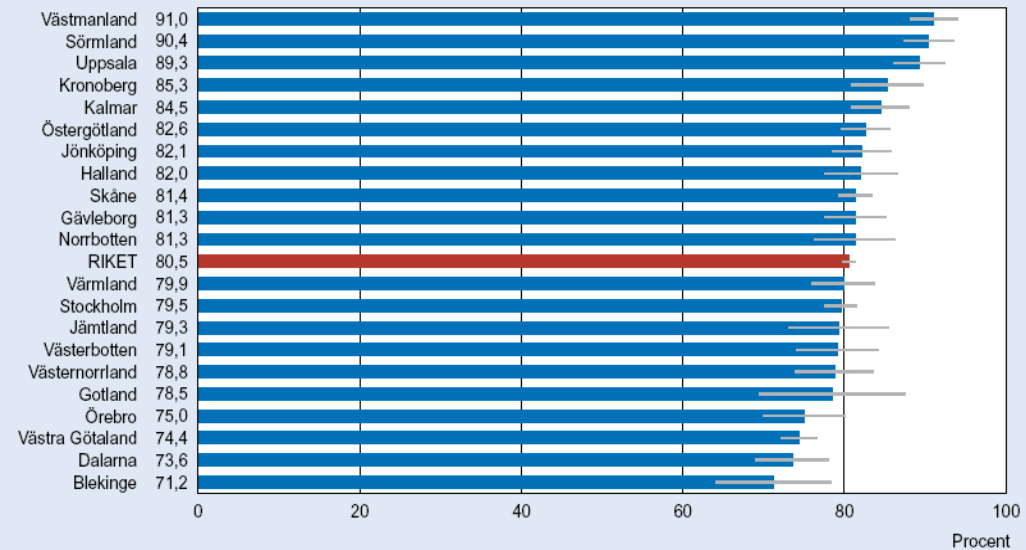
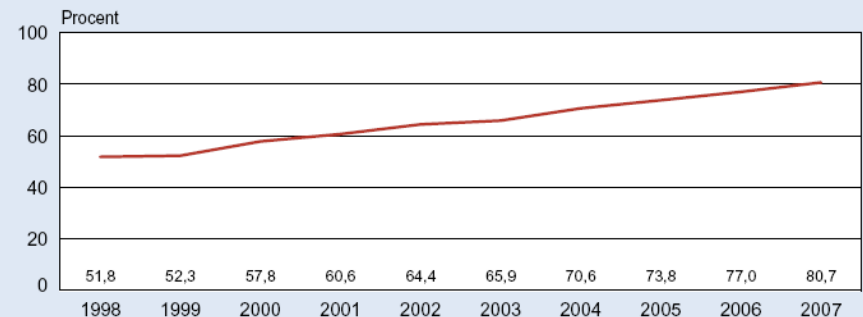


Diagram B16
Riket

Andel patienter med RAAS-hämmare vid utskrivning
efter hjärtinfarkt. Avser patienter ≤ 80 år.

Källa: RIKS-HIA – Nationellt register för hjärtintensivvård



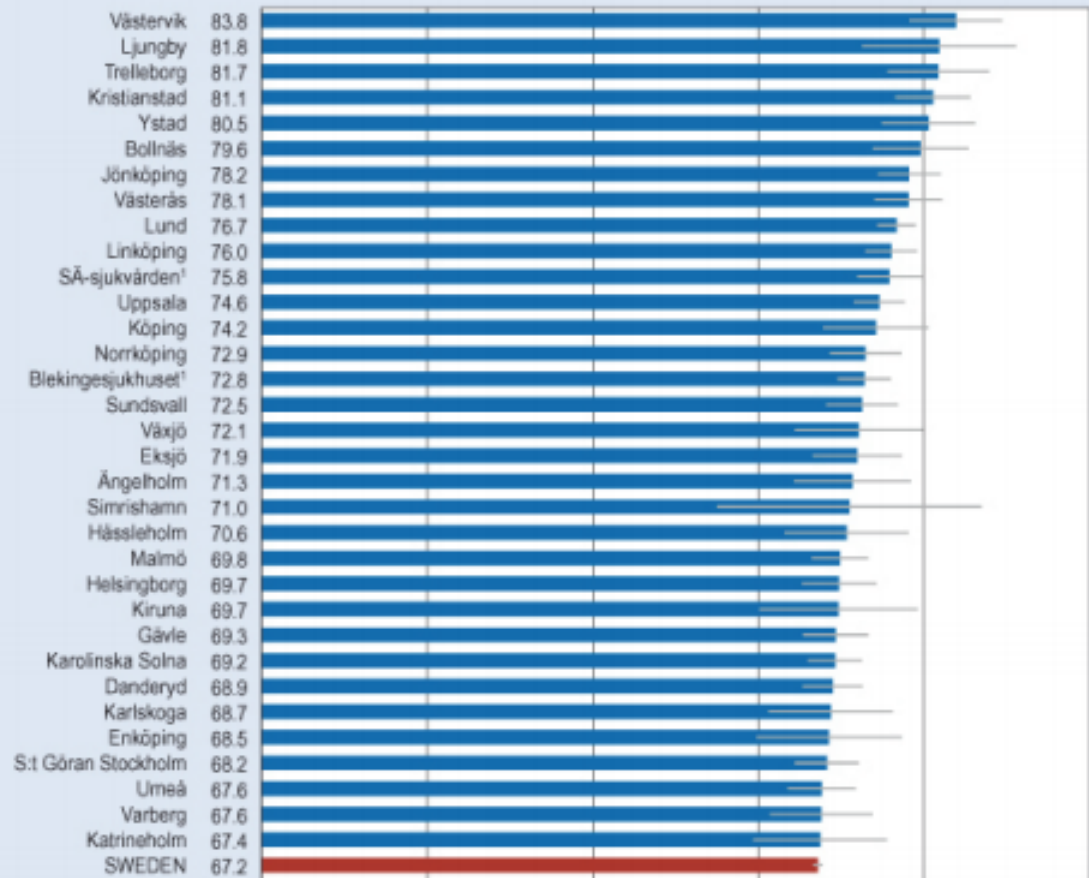
Account of the results: trends and comparisons

....combinations of Health
Data Registers and
Health Care Quality
Registers

Figure B17
Hospitals

Percentage of patients treated with RAAS inhibitor
12 to 18 months after AMI, 2005–2006. Age <80 years.

Source: The National Patient Register and the Prescribed Drug Register, National Board of Health and Welfare



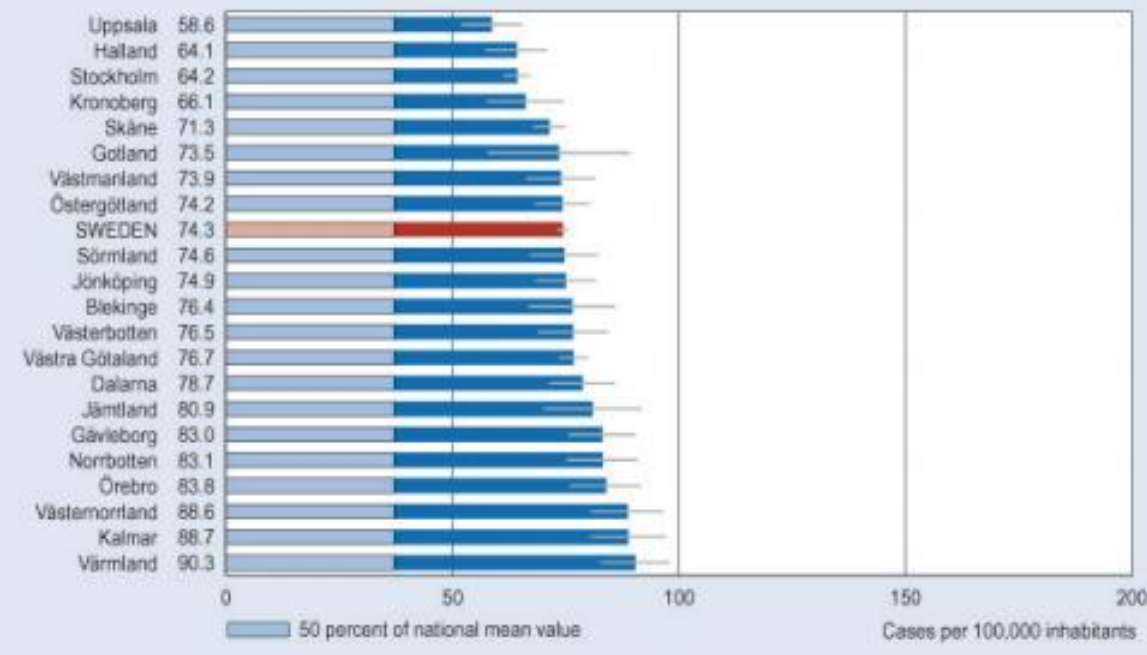
Account of the results: trends and comparisons

Using a public health
indicator as a background
indicator

Figure A1
Total

Mortality in ischemic heart disease per 100,000 inhabitants,
2005–2006. Age <80 years. Age standardised.

Source: The Cause of Death Register, National Board of Health and Welfare



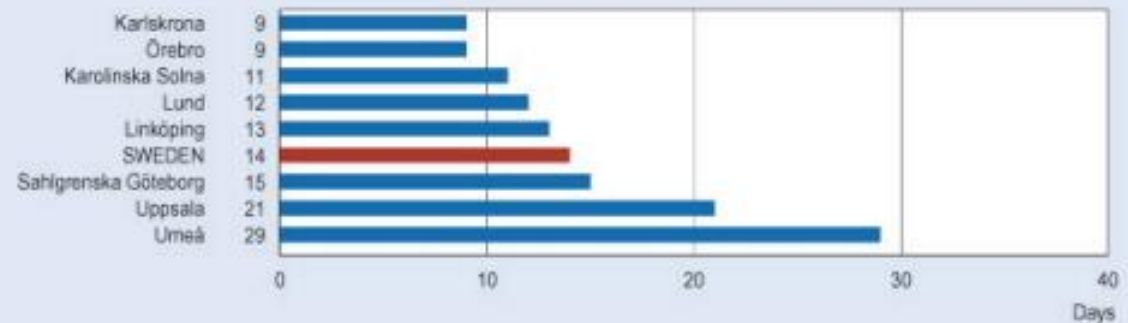
Account of the results: trends and comparisons

Waiting times for coronary artery surgery

Figure B7
Hospitals

Waiting times for coronary artery surgery, measured as
median time from decision to completed operation, 2007.

Source: The Swedish Cardiac Surgery Register



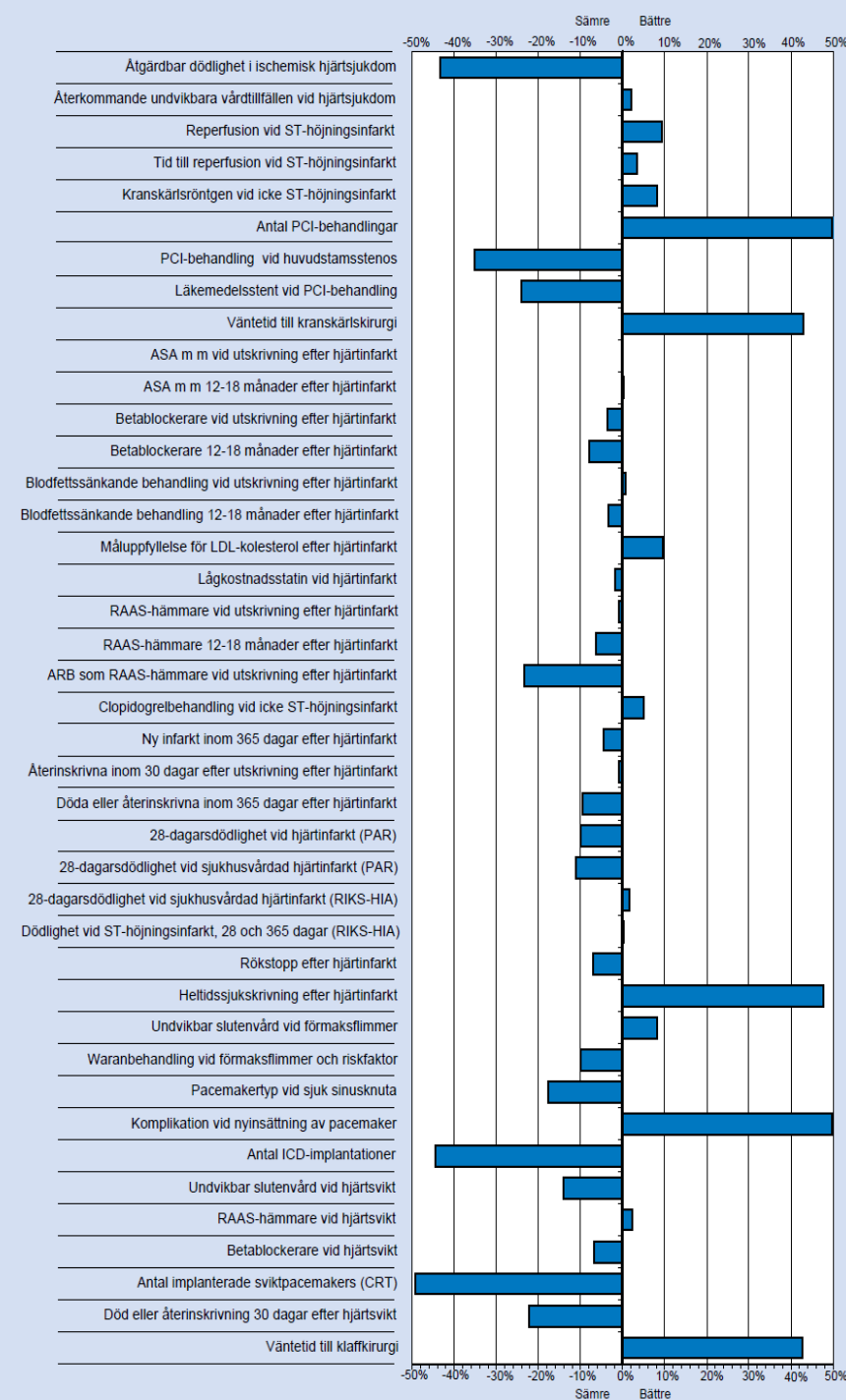
Evaluation of county councils and hospitals

Comment on the outcome to each county

- Strengths
- Areas to be improved

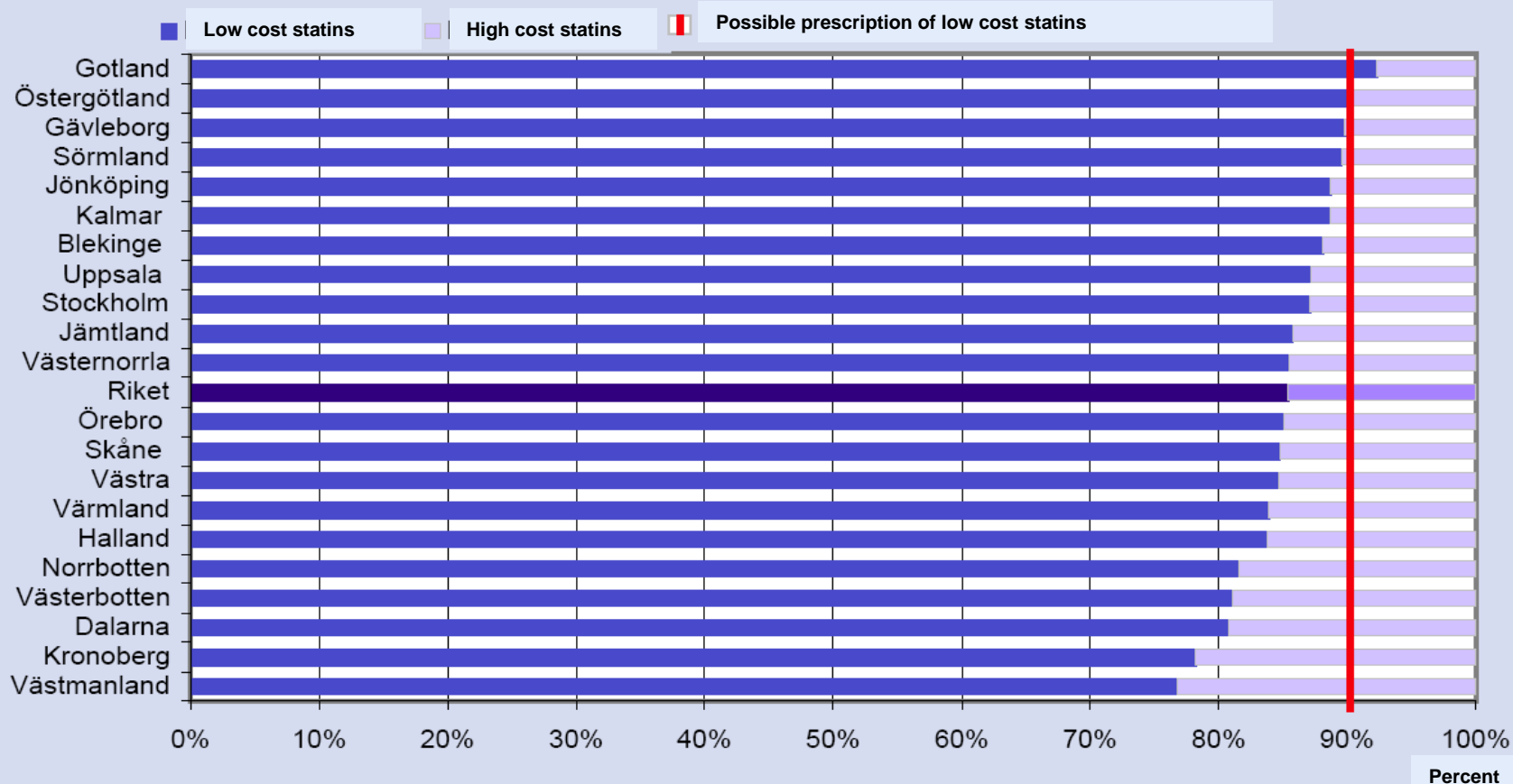
Diagram

- County council profile
- Hospital profiles



Additional costs due to non-compliance with National Guidelines

Patients with AMI 1998-20007 treated with low cost statins or high cost statins
January- June 2008



Recommendation

- In nine areas, there is a real need for improvement in all or nearly all county councils and hospitals
- Reduce mortality after infarction
- Improving the potential for assessment of cardiac care processes and results

Areas for improvement in all or nearly all county councils and hospitals

1. An increase in the percentage of patients with ST-segment elevation infarction receiving reperfusion treatment (restoration of blood flow to the heart)
2. A reduction in the time between the first ECG and the start of reperfusion treatment in patients with ST-segment elevation infarction
3. An increase in the number of patients treated with lipid-lowering drugs after an infarction
4. Greater efforts to reduce the percentage of patients who continue to smoke after an infarction
5. A reduction in the length of sick leave after an infarction
6. A greater use of anti-coagulant treatment (Warfarin) in patients with atrial fibrillation and at further risk from thrombosis and strokes
7. A greater use of implantable defibrillators (ICD) as primary and secondary preventive measures for the appropriate patient groups
8. A greater number of implantations of failure pacemakers in heart failure patients
9. Shorter valve surgery waiting times

Target levels in national guidelines

The work so far

Assignment

Setting targets at a national level

Carrying out the assignment:

- Literature review
- Summary of national and international experiences
- Seminar series

Setting targets

- proposing a model for indicator objectives in the national guidelines for cancer care

Process proposal



- Statistical method (90th and 10th percentile respectively)
- Examples of other target levels
- Valuation in a consensus process

Examples from
National Guidelines
and
**National Performance
Assessment**

Low risk prostate cancer

Healthcare and medical services should

- offer active monitoring and delayed treatment decisions for persons with low risk prostate cancer with remaining life expectancy of over 10 years.

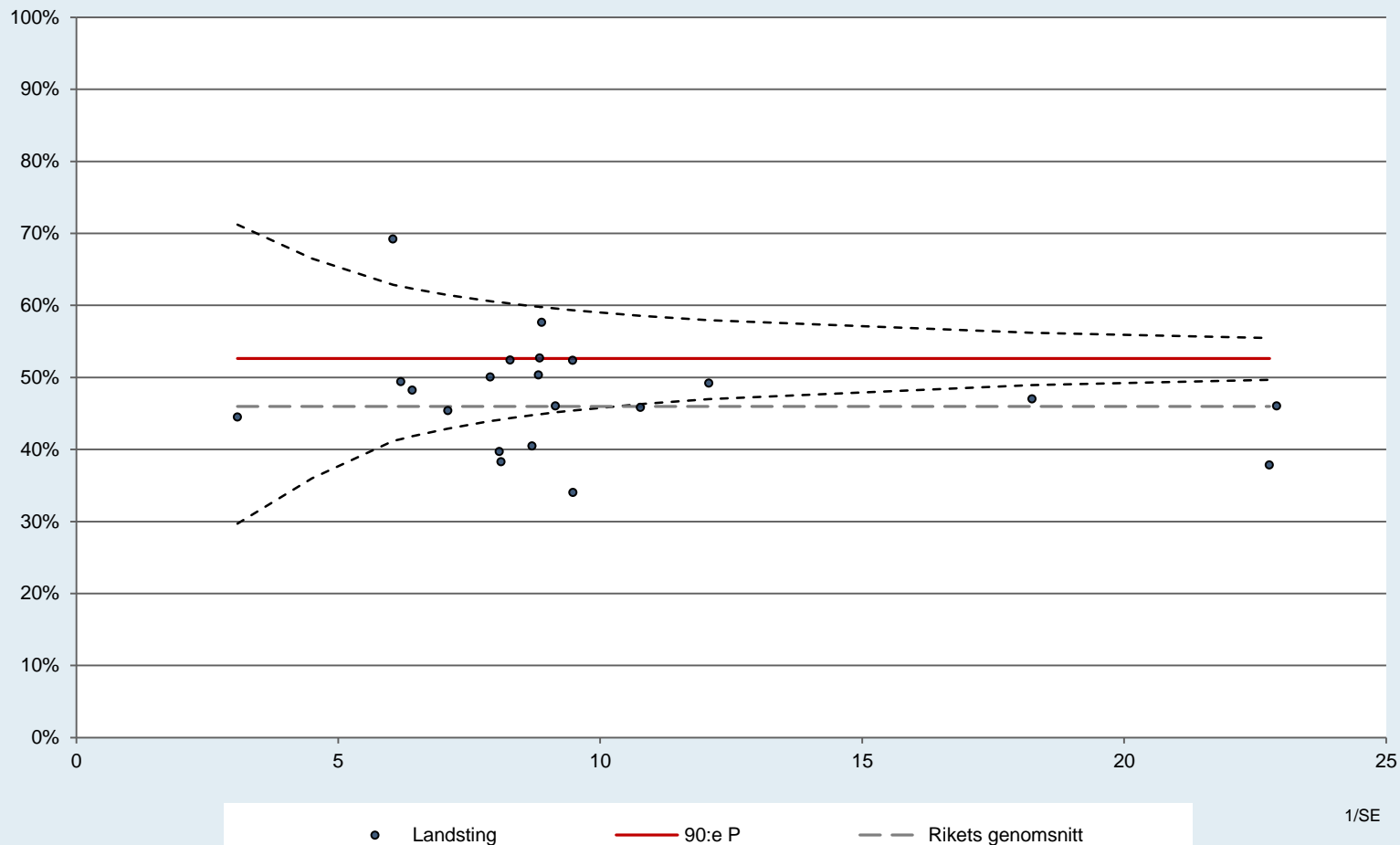
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Motivation for recommendation

- It is crucial that this does not entail any severe side effects and it is also unclear whether there are any differences in survival rates compared to operation or radiotherapy.

Active monitoring, low risk PC

Andel män med prostatacancer som får aktiv monitorering inför senare ställningstagande till behandling, 2010-2011.



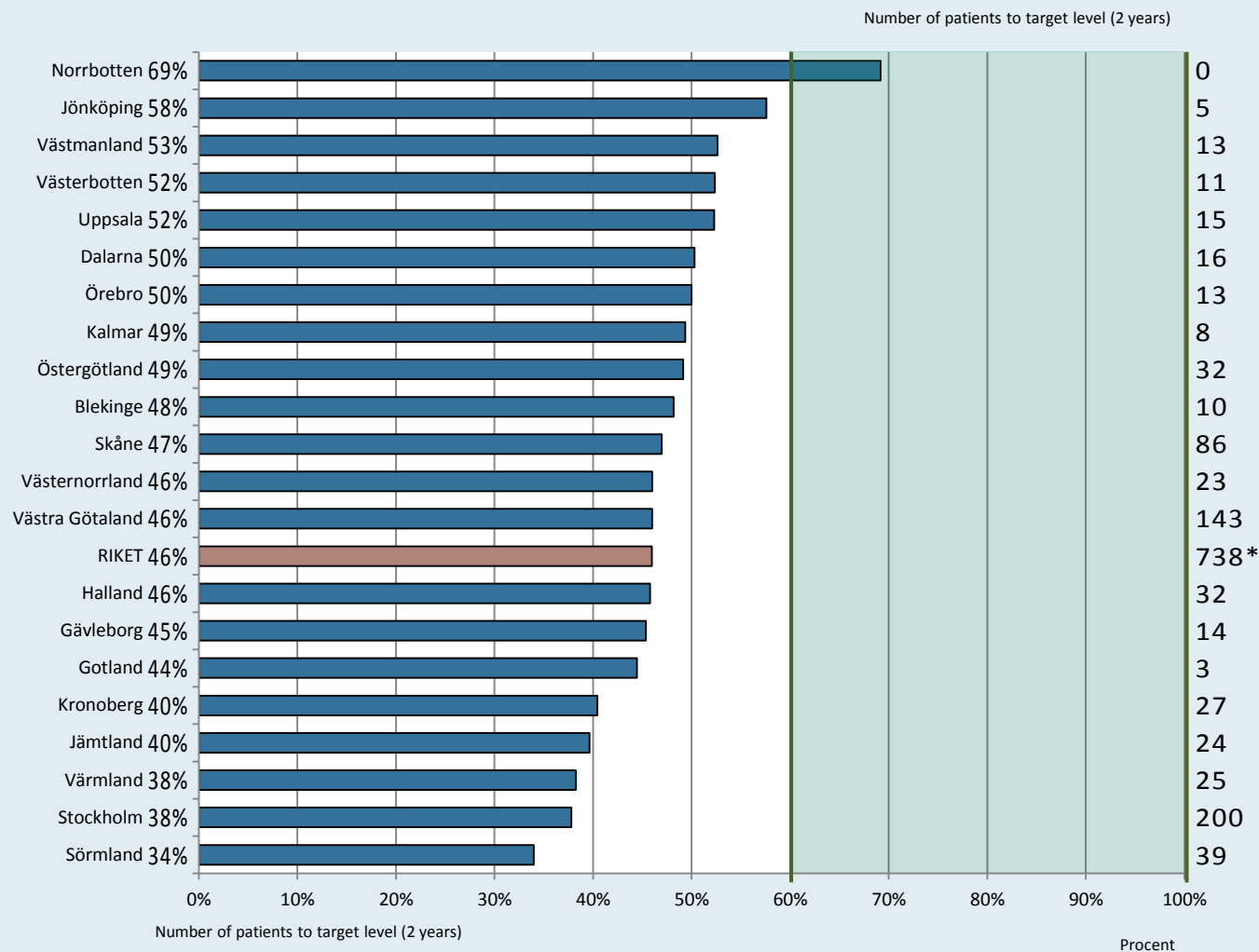
Källa: NPCR - Nationella Prostatacancerregistret

The National Board of Health and Welfare's proposal for a national target level:

- **Target: more than 60%**

Diagram P5
Landsting

Andel män med prostatacancer som får aktiv monitorering inför senare ställningstagande till behandling, 2010-2011.



*Excluding county councils which have achieved the indicator target level

Källa: NPCR - Nationella Prostatacancerregistret

The evaluation's recommendation

Healthcare and medical services can improve prostate cancer care if county councils with a small proportion of active monitoring in the evaluation work towards increasing this proportion among men with low risk prostate cancer

Consequences

- Will affect healthcare resource allocation and organisation, as it demands altering the practice in county councils and regions which currently have a small proportion of patients with active monitoring.
- We assess that the cost on the national level is SEK 3 million per year in order for healthcare and medical services to increase the proportion with active monitoring.