

Helseatlas

Equitable health services – regardless of where you live?

Relation between morbidity and intervention for coronary heart disease

– younger (50-74 years) vs elderly (≥ 75 years)

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Oxford, 11th September 2017

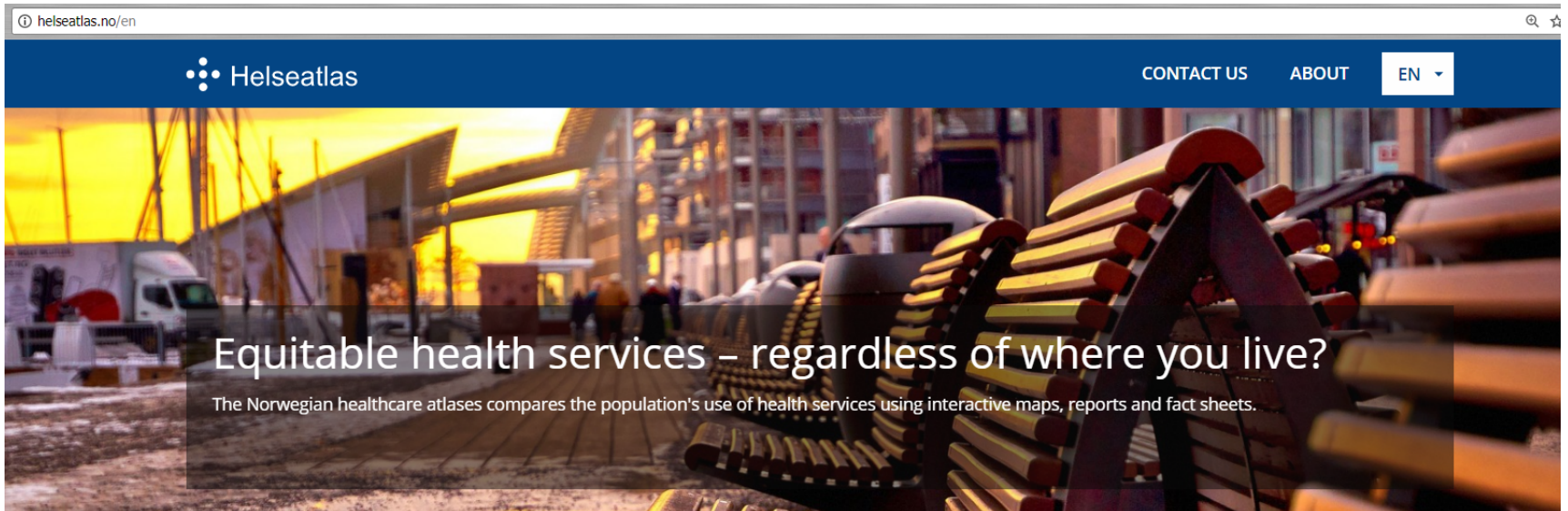


Background

- Healthcare Atlas for elderly patients
- Published in June 2017;
The 4th National Healthcare Atlas for Norway
- English: www.helseatlas.no/en

The Norwegian Health Atlases:

www.helseatlas.no/en



**NEONATAL ATLAS,
2009-2014**



INTERACTIVE MAP



REPORT



FACT SHEETS



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**CHILD HEALTHCARE
ATLAS, 2011-2014**



INTERACTIVE MAP



REPORT



FACT SHEETS



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**DAY SURGERY, 2011-
2013**



INTERACTIVE MAP



REPORT



FACT SHEETS



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Elderly in progress

Child healthcare atlas, 2011-14

Color groups

Report

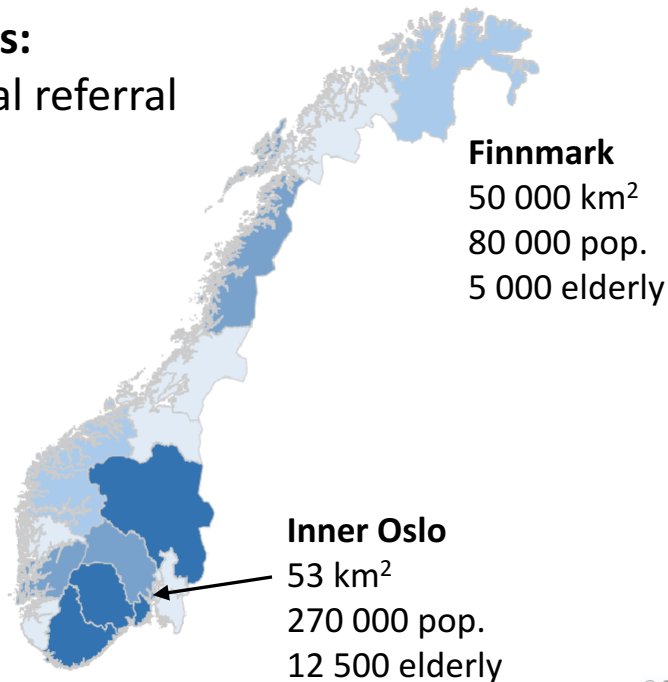
Fact sheets

About

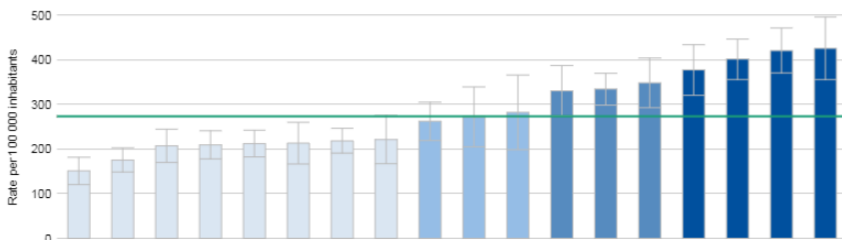
Maps

- ▶ Children 0–16 years, total
- ▼ Medical conditions, the specialist health service
 - ▶ Type of contact
 - ▼ Medical admissions
 - Viral gastroenteritis
 - Viral and respiratory tract infections
 - Bronchiolitis, children 0–3 years
 - Constipation (obstipation)
 - Epilepsy**
 - ▶ Medical outpatient services
- ▶ Surgical conditions, the specialist health service

Regions: Hospital referral areas



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Medical conditions, the specialist health service - Medical admissions (Epilepsy)

Epilepsy represents a wide range of illness in children. Some have only experienced one or two seizures and are not on permanent medication. Others have complicated and complex conditions where epilepsy can be one of several symptoms of the child's underlying illness. Many children can be followed up as outpatients. Children with difficult-to-control epilepsy will nevertheless require emergency care admissions in connection with seizures and planned admissions for adjustment of medication and interdisciplinary assessments of the child's medical and social situation and level of functioning.

Hospital referral areas	Rate	Number	Inhabitants
St. Olavs	151	94	62 253
OUS	175	169	95 564
Østfold	207	119	57 341
Stavanger	209	171	81 507
Bergen	212	194	91 673
UNN	213	80	37 609
Akershus	218	237	108 469
Nord-Trøndelag	221	65	29 056
Møre og Romsdal	262	143	54 199
Førde	272	64	23 330
Finnmark	282	44	15 332
Fonna	330	131	39 744
Vestre Viken	334	337	100 582
Nordland	348	151	43 186
Vestfold	377	171	45 330
Innlandet	401	304	75 231
Sørlandet	420	268	63 768
Telemark	425	142	33 344

National numbers - click on national rate for comparison

Rate	Number	Inhabitants
273	2 881	1 057 514

- Three elements:
- Interactive maps
- Fact sheets
- Report

Healthcare Atlas for the Elderly in Norway

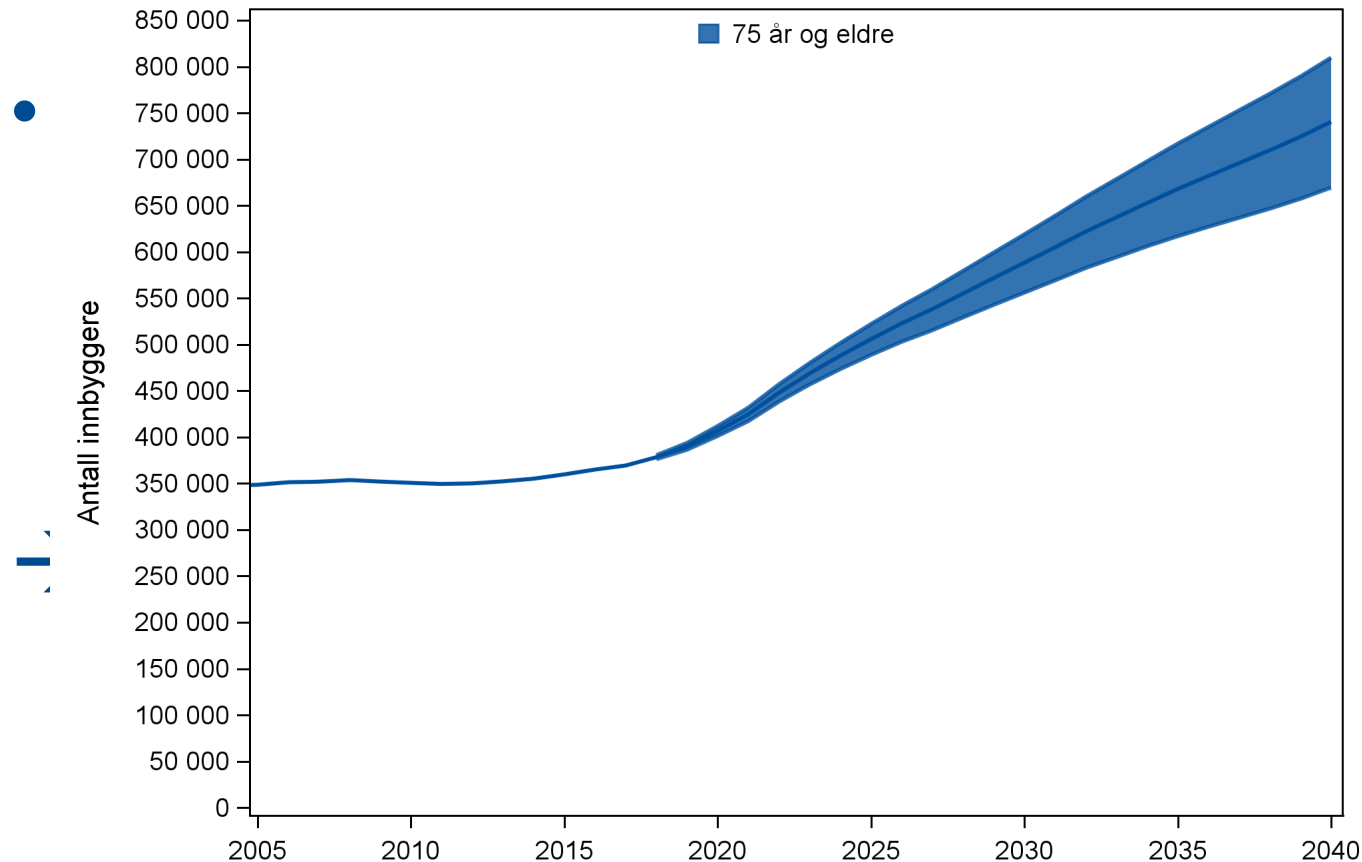
An overview and analysis of publicly funded somatic health services for the population 75 years and older for the periode 2013–2015



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Background

- Twice as many elderly (≥ 75 years) by 2040
 - Increase from 7% to 12% of the total population



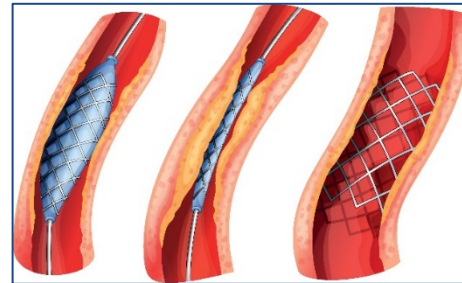
quality
of

Objective

- Is age a criterion for priority setting for intervention in Norwegian heart disease patients?

50 – 74 years ↔ 75 years and older

Myocardial infarction (MI) admissions



Intervention:
Revascularization
(PCI or bypass)



Not the only reason for revascularization

- MI as a proxy for morbidity and need

Data

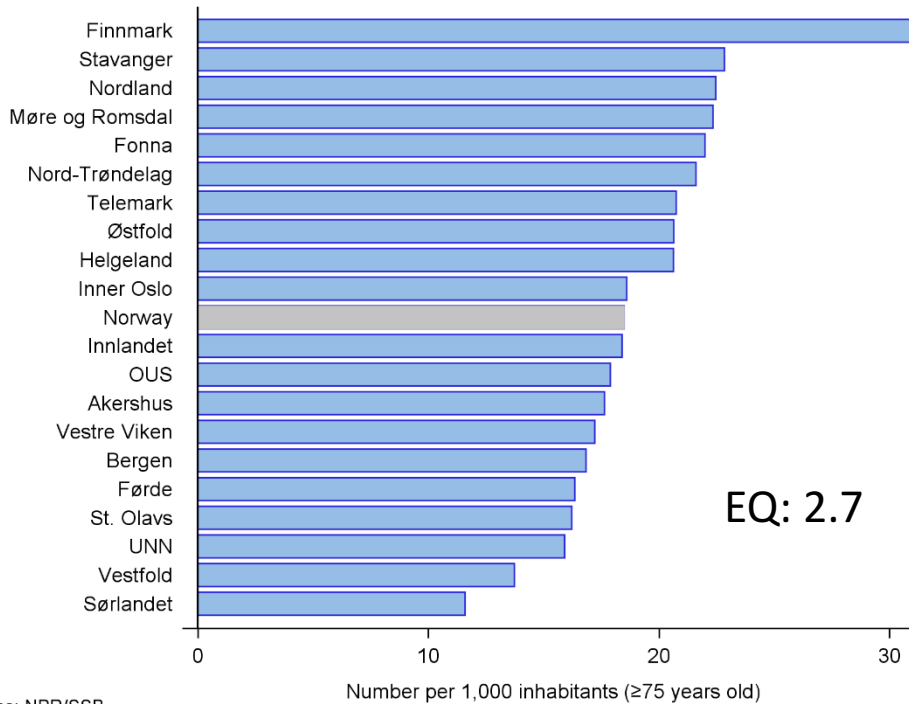
- Norwegian Patient Registry (NPR), 2013-15.
Complete population data
 - Need/morbidity: MI admissions (diagnosis)
 - Intervention: Revascularization (procedures)

	Number per year		
	50 - 74 years	≥ 75 years	≥ 50 years
Inhabitants	1 414 152	359 928	1 774 080
Myocardial infarction admissions	6 570	6 652	13 222
Coronary revascularization	9 591	3 208	12 994

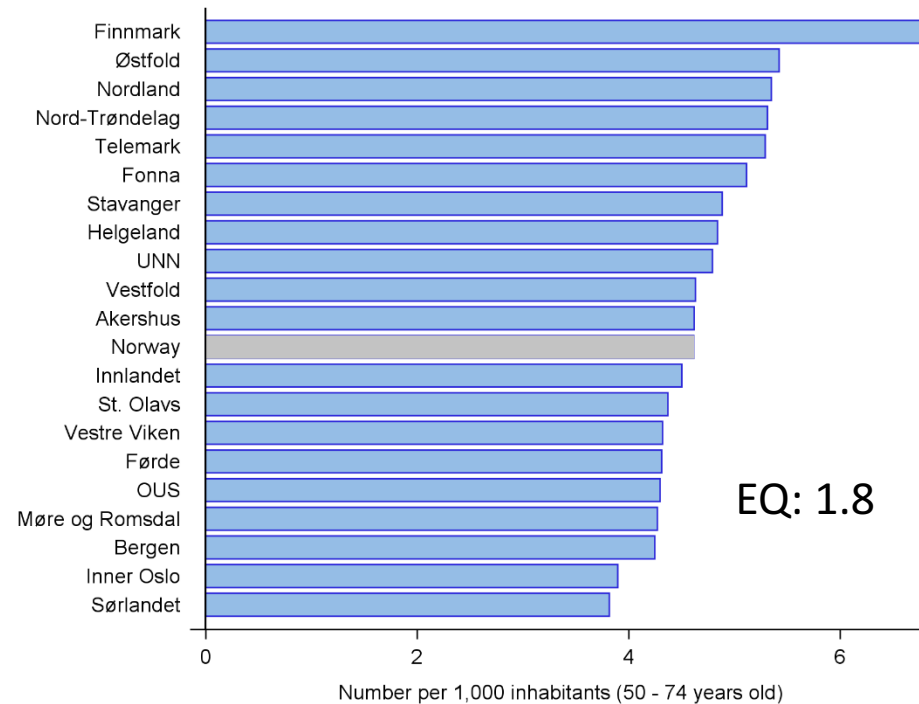
- “fewer” interventions for the elderly
 - Age as a criterion?

Admission rates MI (myocardial infarction)

Elderly, ≥ 75 years old



Younger, 50 – 74 years old

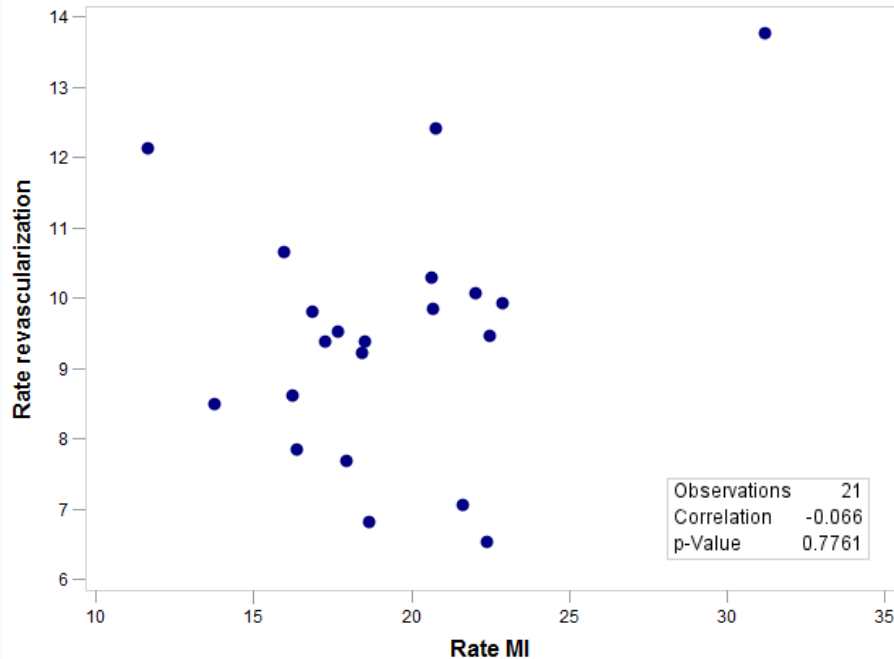


Source: NPR/SSB

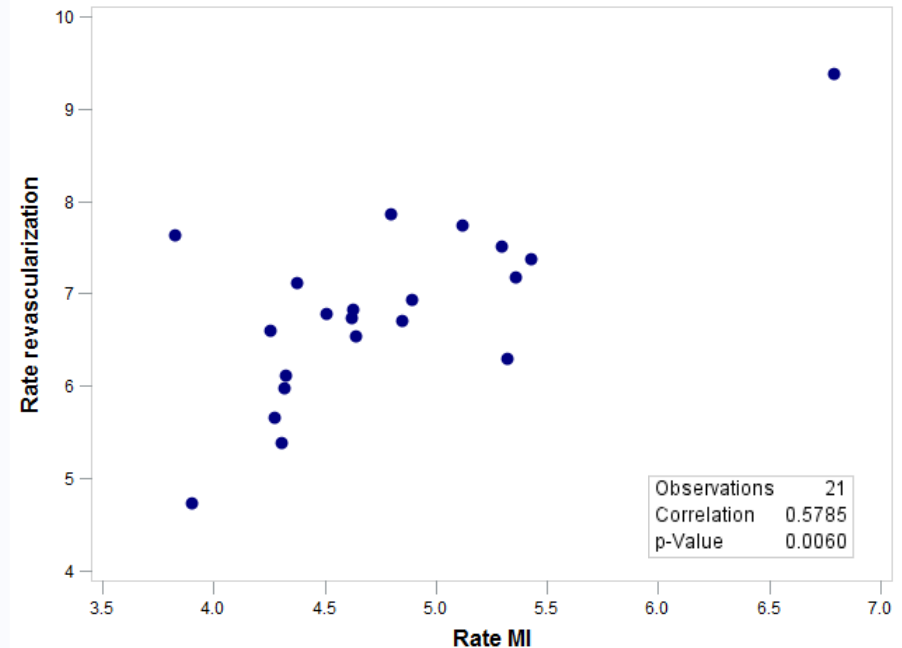
- More variation among the elderly

Needs → interventions?

Elderly, ≥ 75 years old



Younger, 50 – 74 years old



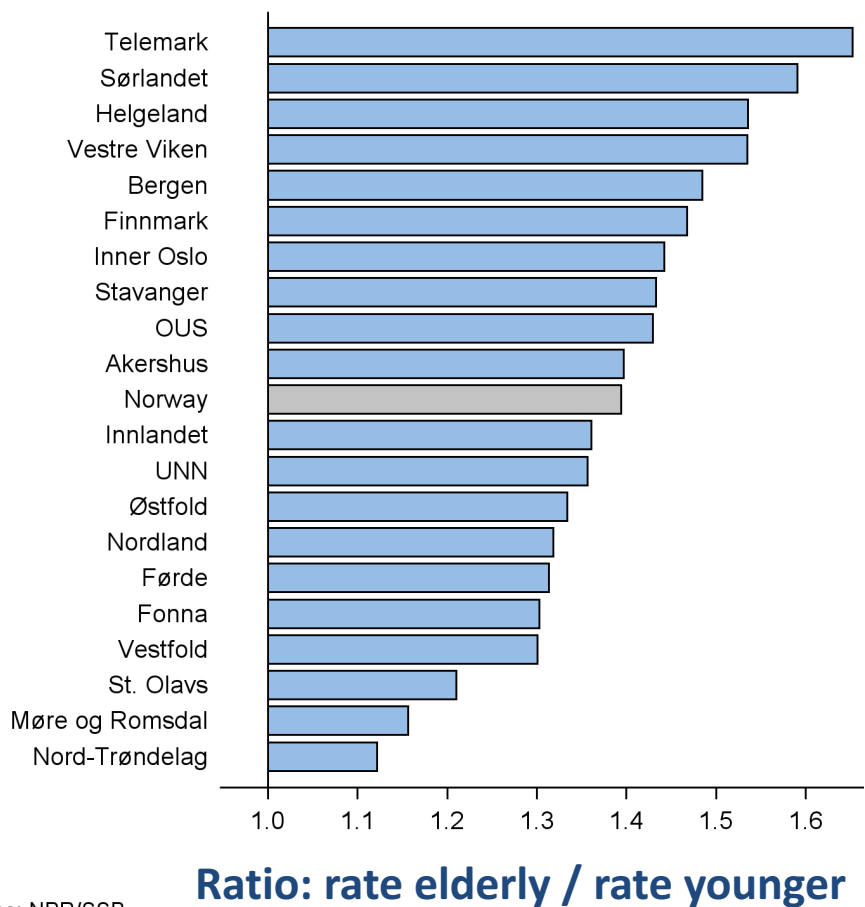
- Correlation within referral areas between MI admissions and intervention
- Positive and significant correlation for the younger

Equal morbidity ≠ equal intervention?

- Equal number of MI
- Younger: 3 * interventions
- Elderly:
 - More comorbidity
 - Might not benefit as much from intervention?
 - More contraindications
 - Different patient preferences?
- Less intervention might be justified
- **But, this age effect should be equal between the referral areas**

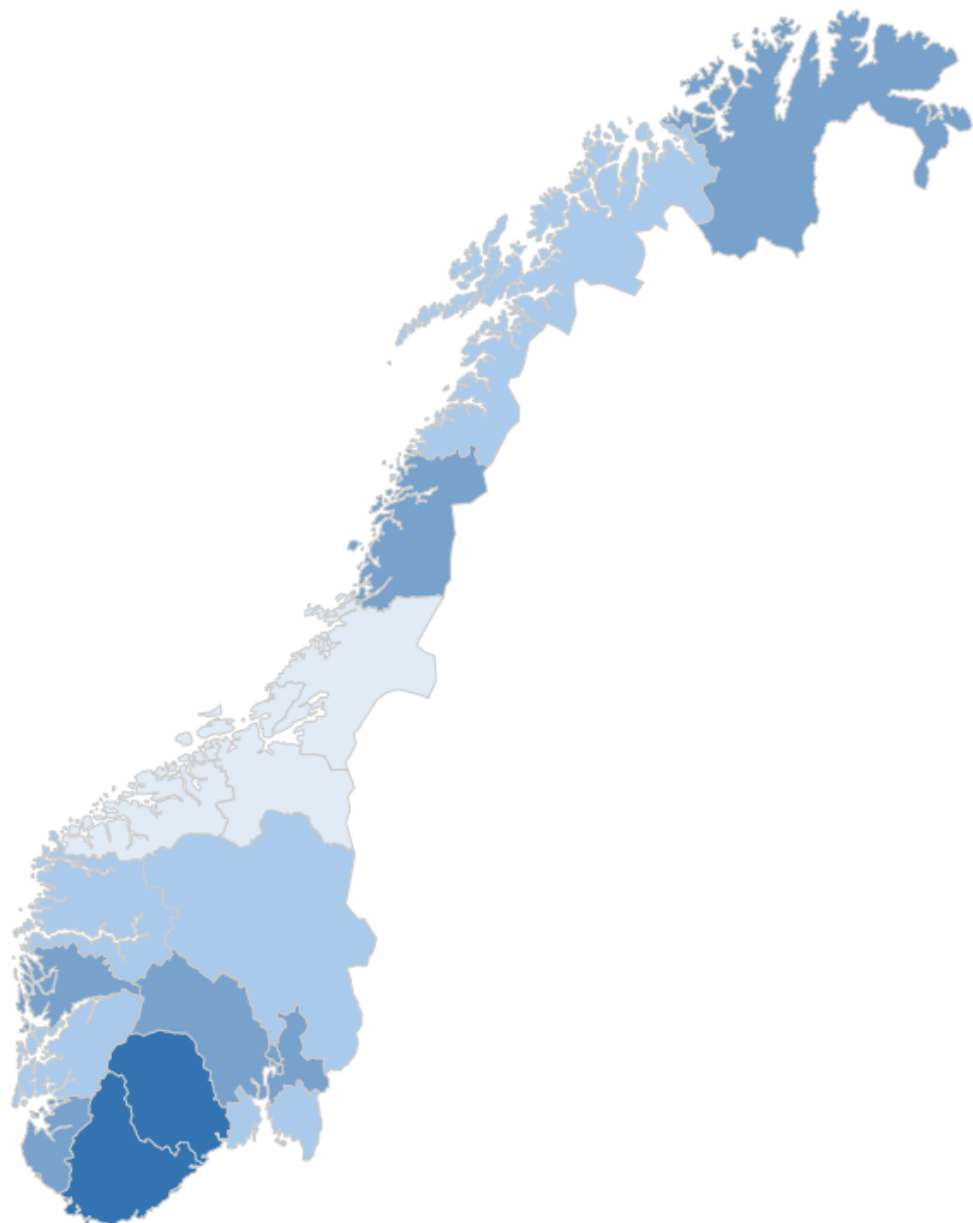
Equal age effect between areas?

Hospital referral area



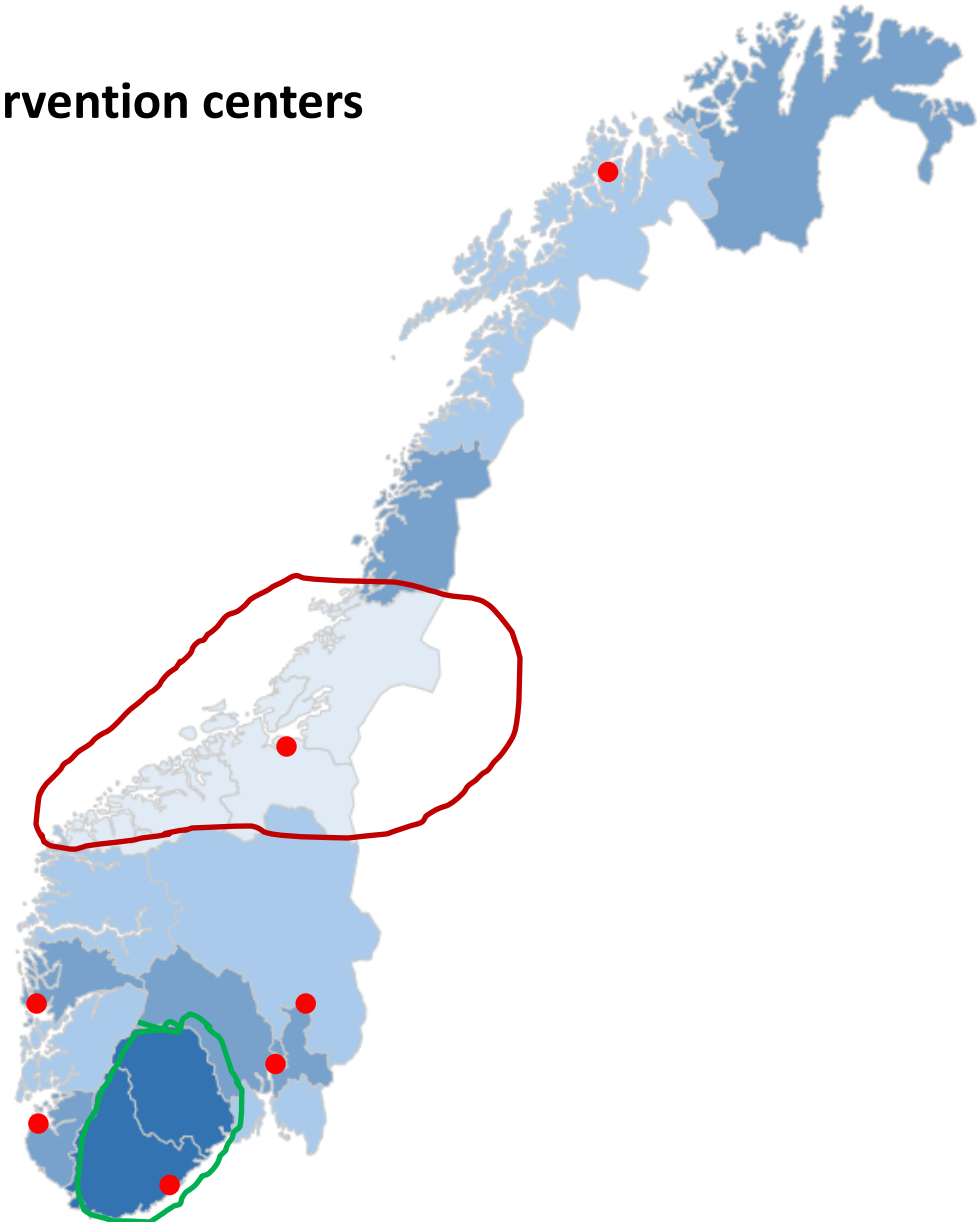
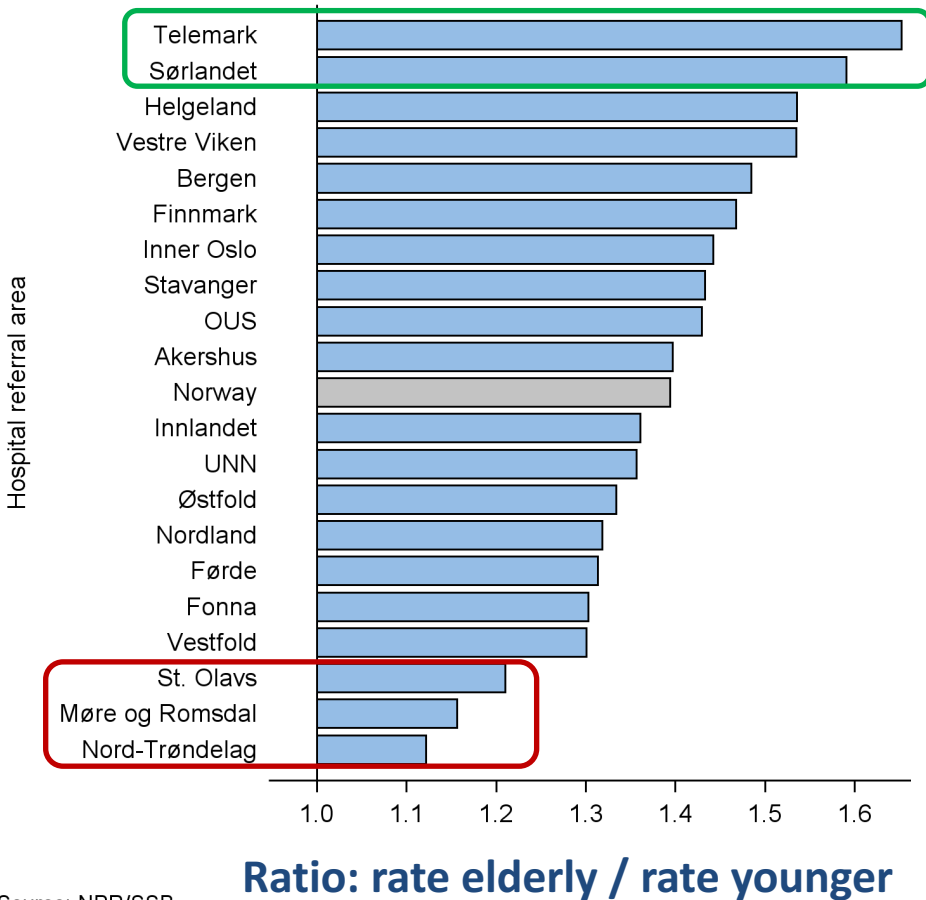
Ratio: rate elderly / rate younger

Source: NPR/SSB



Equal age effect between areas?

7 intervention centers



Conclusions

- More variation in both MI admission rates and intervention rates among the elderly
- Different age effect between the regions
- A strong correlation between MI rates and intervention rates for younger, but not for elderly patients
- Next steps:
 - predictors for variation in intervention rates:
 - Distance to intervention center?
 - Socioeconomic status?