



rkkp

regionernes kliniske kvalitetsudviklingsprogram

Velkommen til parallelsession om variation:

Variationsforskning og Will Rogers fænomenet. Henrik Møller. 15 minutter

Overlevelse efter operation for spiserørskræft. Anne Gulbech Ording. 10 minutter

Rapportering på forskellige geografiske niveauer. Anne Mette Falstie-Jensen. 10 minutter

Diskussion 25 minutter.

Variation i kliniske processer og outcomes

John Appleby: variation i udbud og efterspørgsel (tilgængelighed og behov)

VARIATIONS IN HEALTH CARE

The good, the bad and the inexplicable

John Appleby

Veena Raleigh

Francesca Frosini

Gwyn Bevan

Haiyan Gao

Tom Lyscom

Figure 3 Distribution of crude rates and age-gender standardised rates for primary hip replacement (English PCTs, 2009/10)

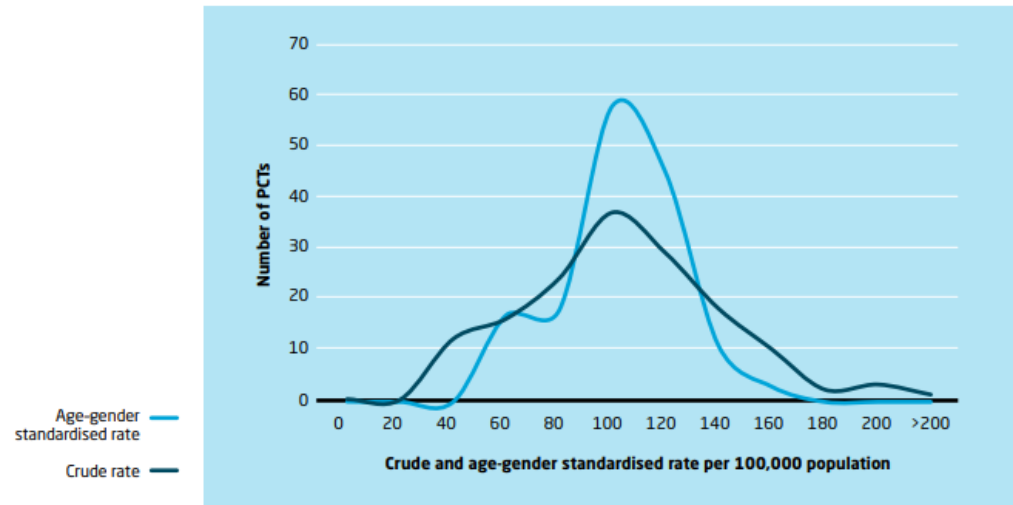
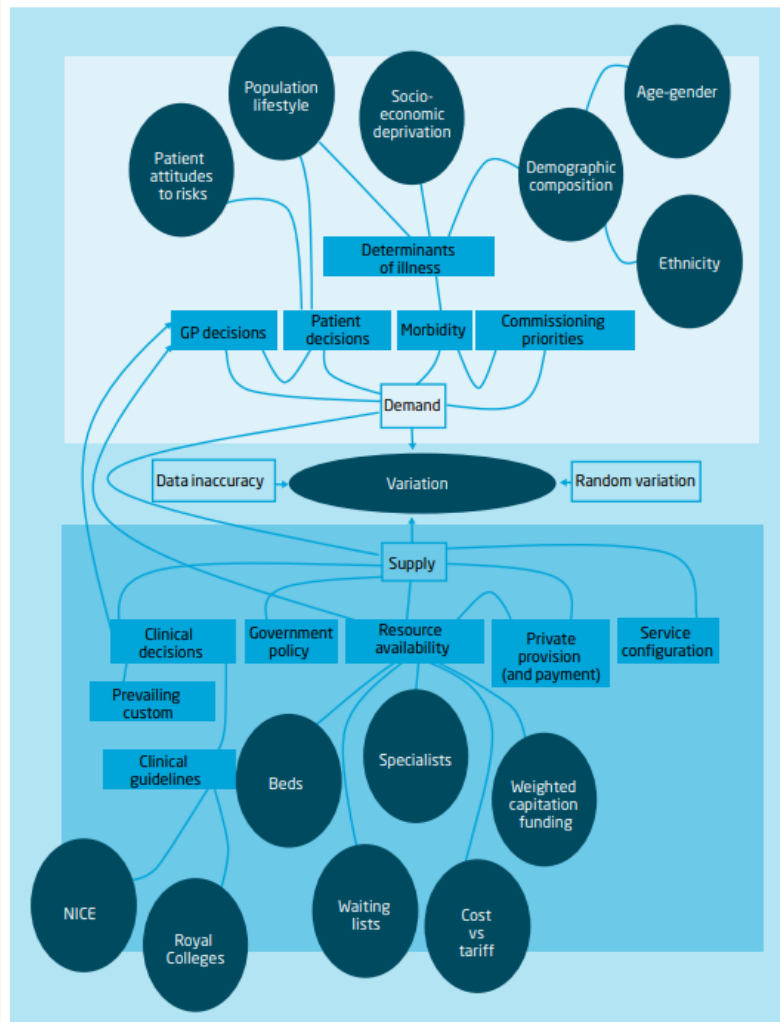


Figure 1 Mapping causes of variation

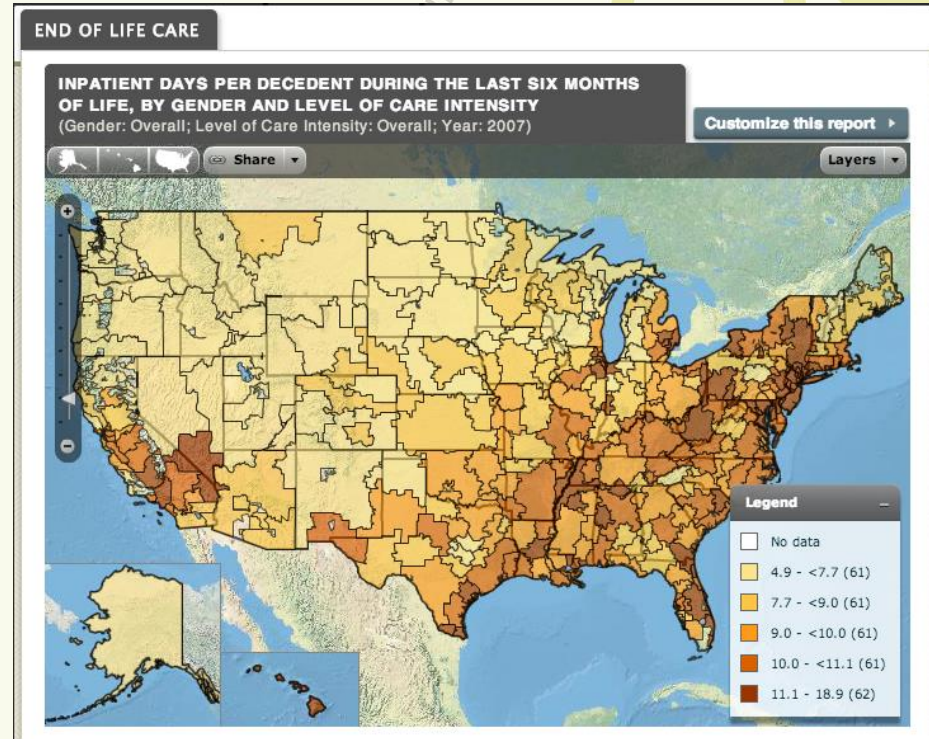


Variation i behov

Variation i tilgængelighed

Variation i kliniske processer og outcomes

John Wennberg; Dartmouth College;
“variationsforskning”

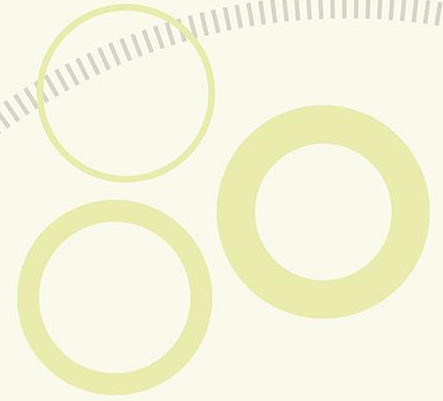




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Will Rogers fænomenet: Eksempel på selektionsbias





When the Oakies left Oklahoma and moved to California, it raised the I.Q. of both states.

— *Will Rogers* —

AZ QUOTES

Stage-migration

1604

THE NEW ENGLAND JOURNAL OF MEDICINE

June 20, 1985

THE WILL ROGERS PHENOMENON

Stage Migration and New Diagnostic Techniques as a Source of Misleading Statistics for Survival in Cancer

ALVAN R. FEINSTEIN, M.D., DANIEL M. SOSIN, M.D., AND CAROLYN K. WELLS, M.P.H.

Abstract We found that a cohort of patients with lung cancer first treated in 1977 had higher six-month survival rates for the total group and for subgroups in each of the three main TNM stages (tumor, nodes, and metastases) than a cohort treated between 1953 and 1964 at the same institutions. The more recent cohort, however, had undergone many new diagnostic imaging procedures. According to the "old" diagnostic data for both cohorts, the recent cohort had a prognostically favorable "zero-time shift." In addition, by demonstrating metastases that had formerly been silent and unidentified, the new technological data

resulted in a stage migration. Many patients who previously would have been classified in a "good" stage were assigned to a "bad" stage. Because the prognosis of those who migrated, although worse than that for other members of the good-stage group, was better than that for other members of the bad-stage group, survival rates rose in each group without any change in individual outcomes. When classified according to symptom stages that would be unaltered by changes in diagnostic techniques, the two cohorts had similar survival rates. (N Engl J Med 1985; 312:1604-8.)

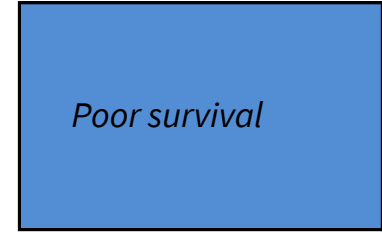
Stage-migration

Stage migration and stage-specific survival

Localised



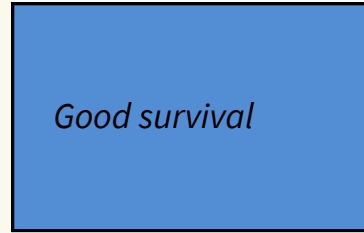
Advanced



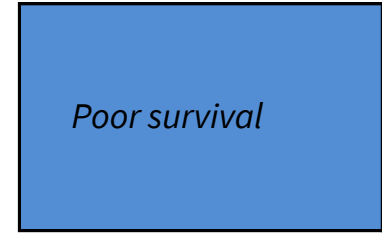
Stage-migration

Stage migration and stage-specific survival

Localised

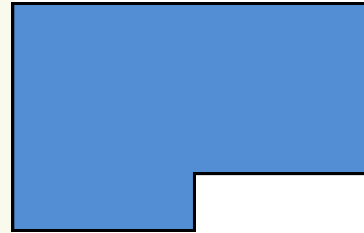


Advanced

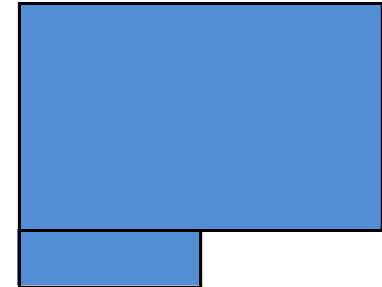


Now with more careful staging technology:

Localised



Advanced



Survival increases in both groups, but not overall.

Lung cancer registrations in England

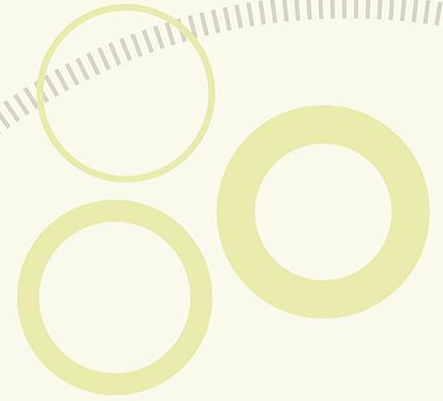
- 176,225 cases 2010-2014 for detailed survival analysis



Variables

- Survival time
- Area of residence
- Treatments: surgery, radiotherapy, chemotherapy

- Age
- Sex
- Socioeconomic status
- Comorbidity
- Stage

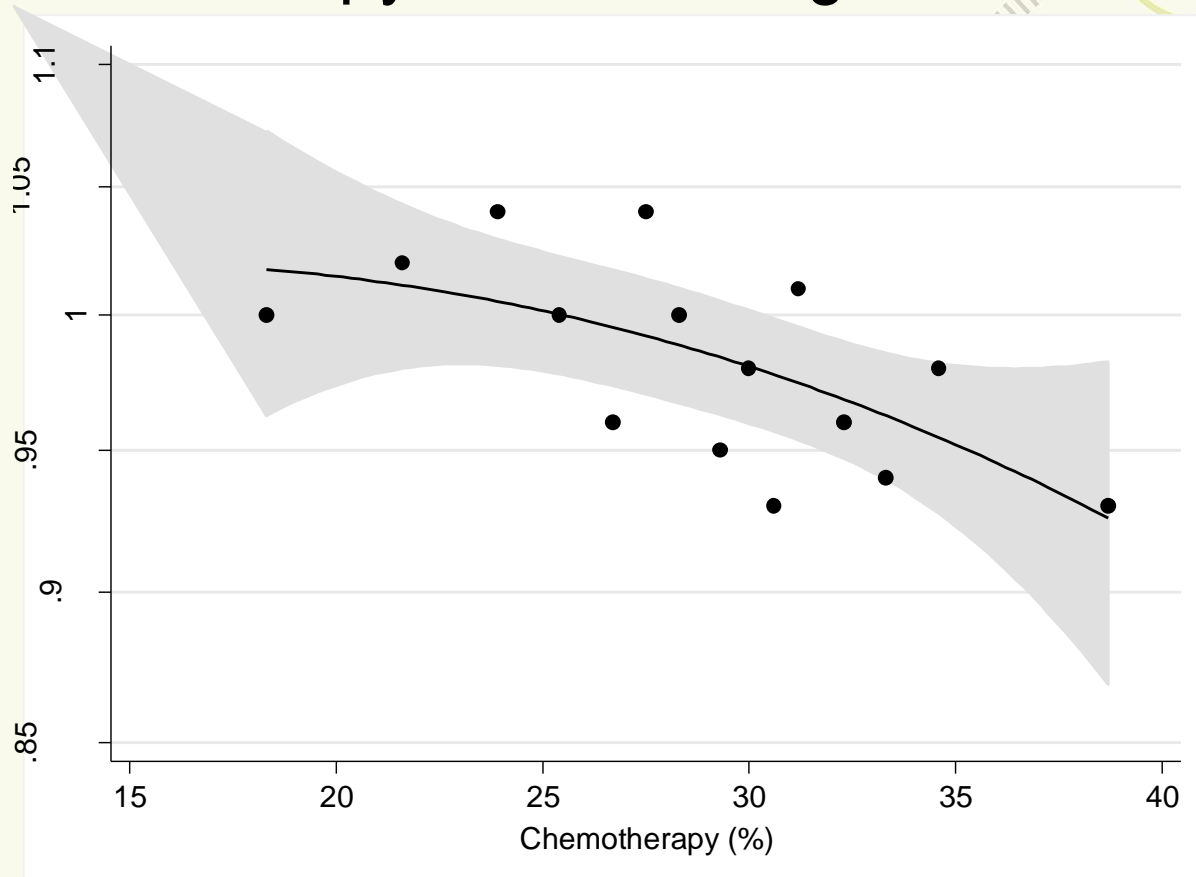


Chemotherapy use and stage IV survival

3C Geographical quintile of chemotherapy		All		With chemo			Without chemo			
		Adjusted for age and sex and restricted to Stage IV patients		Adjusted for age and sex and restricted to Stage IV patients			Adjusted for age and sex and restricted to Stage IV patients			
		HR	95% CI		HR	95% CI		HR	95% CI	
1	22	1.00			1.00			1.00		
2	%	0.98	0.96	1.00	1.02	0.97	1.07	1.07	1.04	1.10
3		0.96	0.94	0.98	1.02	0.97	1.06	1.09	1.06	1.12
4		0.95	0.92	0.97	1.04	0.99	1.09	1.10	1.07	1.13
5	35 %	0.93	0.91	0.95	1.06	1.01	1.10	1.13	1.10	1.16
χ^2 (1 df)		42.3		7.2			76.0			
P for trend		<0.001		0.007			<0.001			

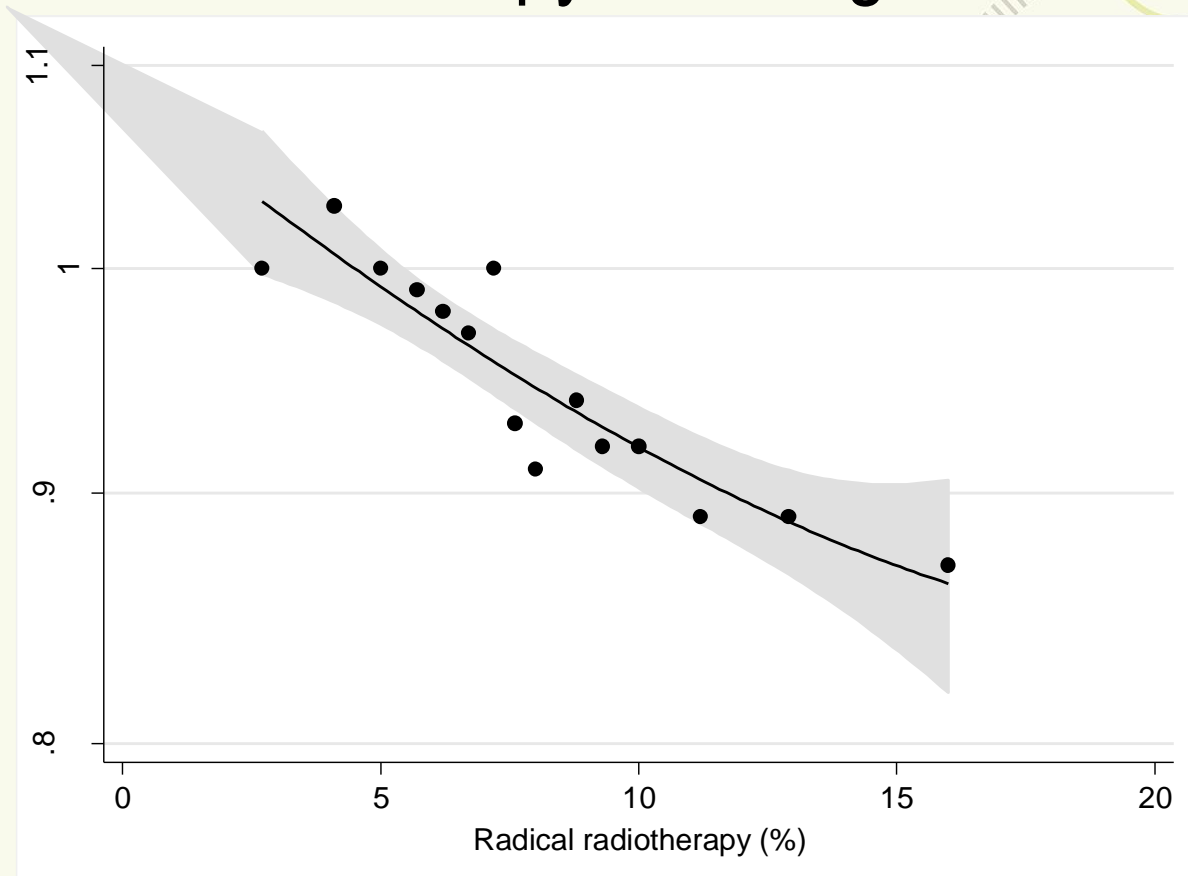
Chemotherapy use and stage IV survival

Hazard ratio;
All patients



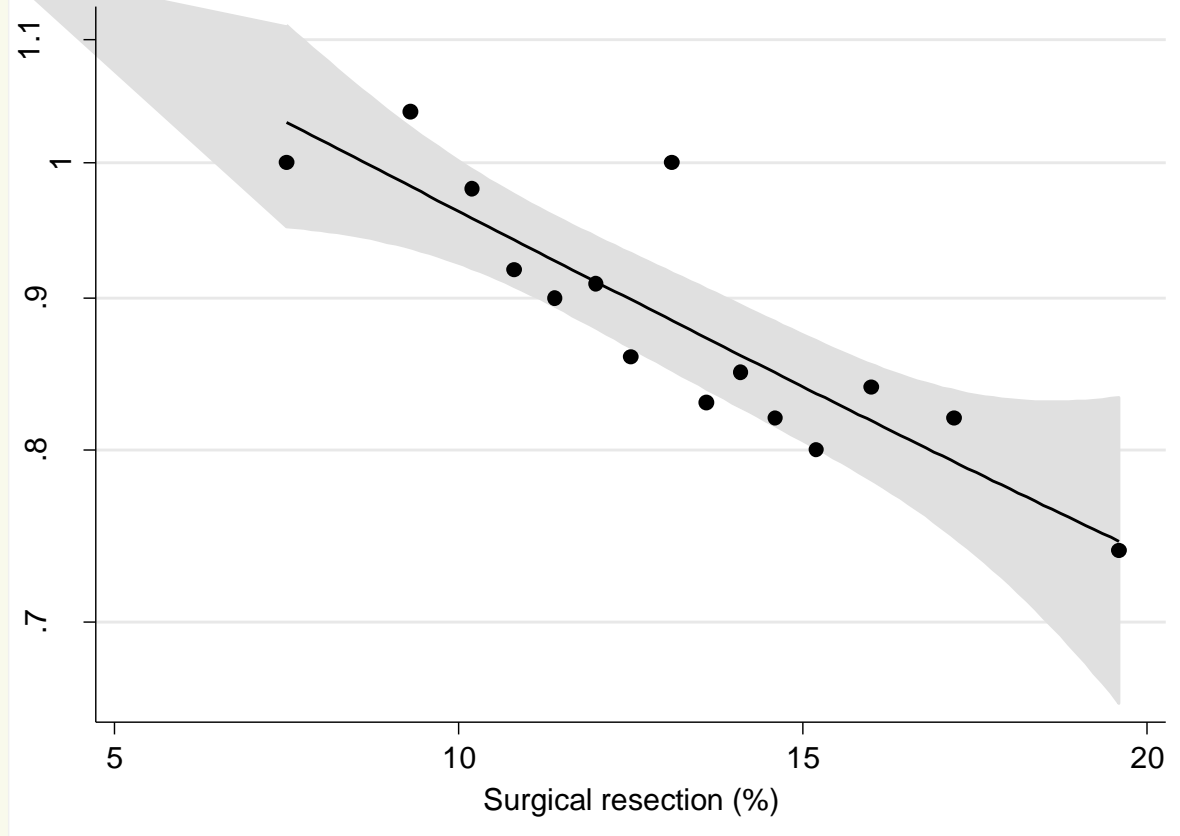
Radical radiotherapy and stage III survival

Hazard ratio;
All patients



Surgical resection and stage I-II survival

Hazard ratio;
All patients



Design af kvalitetsindikatorer

- Overlevelse efter kirurgisk behandling (indikator)
- Andel af patienter som får kirurgisk behandling (bilag)
- Overlevelse i den samlede patientpopulation (bilag)





**Good judgment comes from
experience, and a lot of that
comes from bad judgment.**

Will Rogers