”Sygdomsprognose” – hvilke opgaver og udfordringer står lægen overfor i 2030’erne?

Mickael Bech

Professor i sundhedsledelse og -politik

Institut for Statskundskab, Syddansk Universitet

SDU

Udfordringsbilleder og fremtiden

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Tre tendenser, som ændrer forudsætningerne for det danske sundhedsvæsen

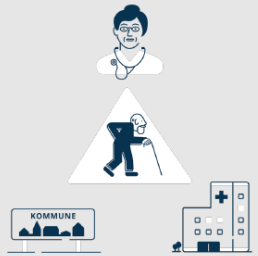
Ændringer i sygdomsbilledet

Mangel på nogle grupper sundhedsfagligt personale

Stigende forventninger til sundhedsvæsenet

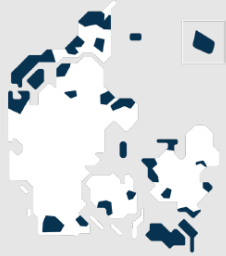
Tre udfordringer for sundhedsvæsenet

Usammenhængende patientforløb

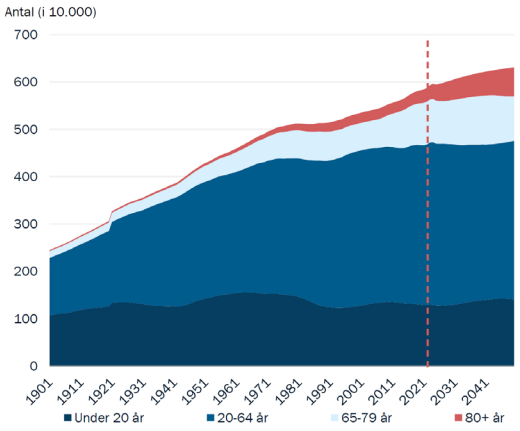


Ubalance mellem det primære og sekundære sundhedsvæsen

Geografisk og social ulighed i sundhed



Figur 1: Befolkningstilvækst fordelt på aldersgrupper, 1901-2050F



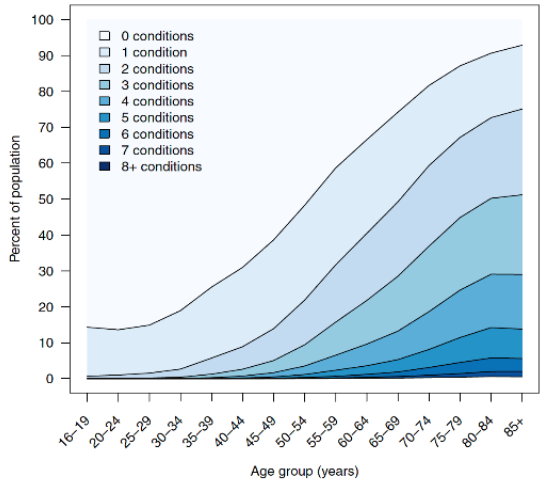
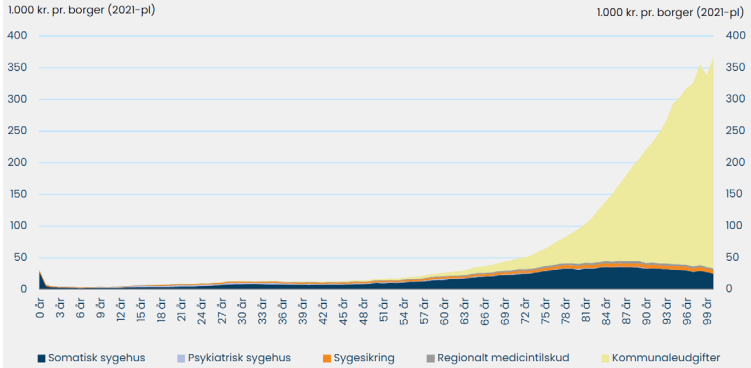


Fig. 1 Number of chronic conditions by age group

Figur 4 - De gennemsnitlige udgifter pr. borger til sundheds- og omsorgsydelser, 2021



Anm: I datagrundlaget for de kommunale udgifter indgår 85 kommuner, idet datagrundlaget kun er tilstrækkeligt for disse. Opgørelserne for 2021 er påvirket af ændringer i aktiviteten som følge af covid-19 og sygeplejerskestrejken. Udgifterne er angivet i pris- og lønniveau for 2021 (2021-PL).

Kilde: Landspatientregisteret (DRG-grupperet), takstsystem 2021 pr. 10. marts 2022, Lægemiddelstatistikregisteret (opdateret 13. juni 2023), Statistikbanken (kontoplan), Kommunernes elektroniske omsorgsjournalsystem (EOJ) og Plejehjemsdata (PLH), Sundhedsdatastyrelsen.

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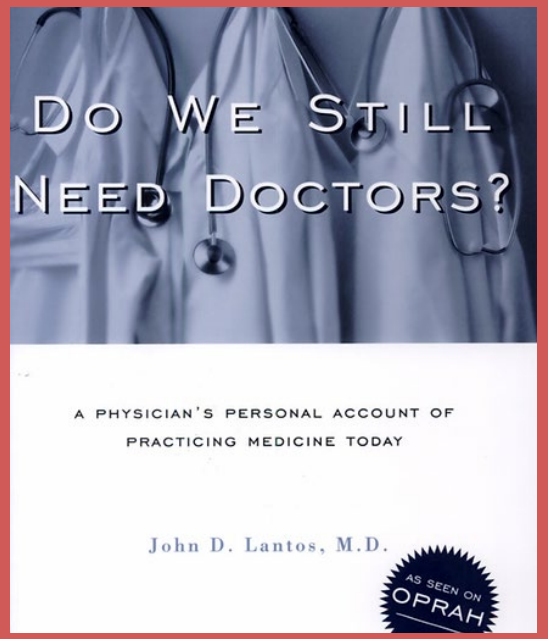
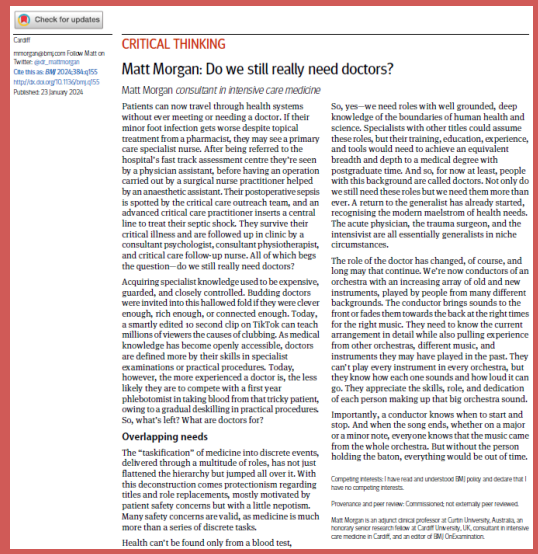
Har vi stadig brug for læger?





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mmorgan@bmj.com Follow Matt on Twitter: @dr_mattmorgan
Cite this as: *BMJ* 2024;384:q155
http://dx.doi.org/10.1136/bmj.q155
Published: 23 January 2024

CRITICAL THINKING

Matt Morgan: Do we still really need doctors?

Matt Morgan *consultant in intensive care medicine*

Patients can now travel through health systems without ever meeting or needing a doctor. If their minor foot infection gets worse despite topical treatment from a pharmacist, they may see a primary care specialist nurse. After being referred to the hospital's fast track assessment centre they're seen by a physician assistant, before having an operation carried out by a surgical nurse practitioner helped by an anaesthetic assistant. Their postoperative sepsis is spotted by the critical care outreach team, and an advanced critical care practitioner inserts a central line to treat their septic shock. They survive their critical illness and are followed up in clinic by a consultant psychologist, consultant physiotherapist, and critical care follow-up nurse. All of which begs the question—do we still really need doctors?

Acquiring specialist knowledge used to be expensive, guarded, and closely controlled. Budding doctors were invited into this hallowed fold if they were clever enough, rich enough, or connected enough. Today, a smartly edited 10 second clip on TikTok can teach millions of viewers the causes of clubbing. As medical knowledge has become openly accessible, doctors are defined more by their skills in specialist examinations or practical procedures. Today, however, the more experienced a doctor is, the less likely they are to compete with a first year phlebotomist in taking blood from that tricky patient, owing to a gradual deskilling in practical procedures. So, what's left? What are doctors for?

Overlapping needs

The "taskification" of medicine into discrete events, delivered through a multitude of roles, has not just flattened the hierarchy but jumped all over it. With this deconstruction comes protectionism regarding titles and role replacements, mostly motivated by patient safety concerns but with a little nepotism. Many safety concerns are valid, as medicine is much more than a series of discrete tasks.

Health can't be found only from a blood test,

So, yes—we need roles with well grounded, deep knowledge of the boundaries of human health and science. Specialists with other titles could assume these roles, but their training, education, experience, and tools would need to achieve an equivalent breadth and depth to a medical degree with postgraduate time. And so, for now at least, people with this background are called doctors. Not only do we still need these roles but we need them more than ever. A return to the generalist has already started, recognising the modern maelstrom of health needs. The acute physician, the trauma surgeon, and the intensivist are all essentially generalists in niche circumstances.

The role of the doctor has changed, of course, and long may that continue. We're now conductors of an orchestra with an increasing array of old and new instruments, played by people from many different backgrounds. The conductor brings sounds to the front or fades them towards the back at the right times for the right music. They need to know the current arrangement in detail while also pulling experience from other orchestras, different music, and instruments they may have played in the past. They can't play every instrument in every orchestra, but they know how each one sounds and how loud it can go. They appreciate the skills, role, and dedication of each person making up that big orchestra sound.

Importantly, a conductor knows when to start and stop. And when the song ends, whether on a major or a minor note, everyone knows that the music came from the whole orchestra. But without the person holding the baton, everything would be out of time.

Competing interests: I have read and understood BMJ policy and declare that I have no competing interests.

Provenance and peer review: Commissioned; not externally peer reviewed.

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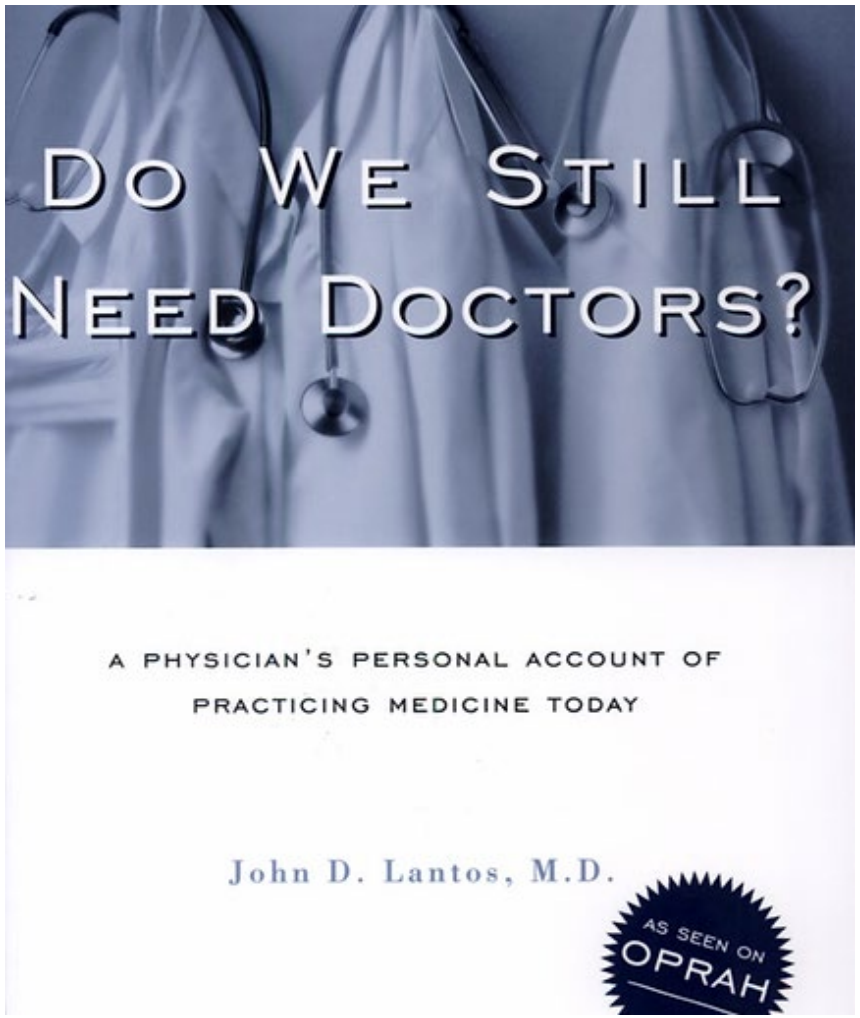

Lægen som organisator og ansvarshaver – eller blot specialist (blandt flere)

→"To imagine that health care teams should be directed by someone other than the doctor, however, is to imagine a world in which doctors no longer do one of the things that define the profession: they no longer give the orders. They are no longer in charge. They are no longer the locus of responsibility for decisions and outcomes" (p. 6-7)

→"Some still imagine the doctor as conductor of this complex orchestra. Others see doctors as merely playing some of the instruments" (p. 7)

→"…all those who care about the direction in which medicine is going and all those who believe that there is art as well as science in medicine should read it." (Larcher, Journal of Medical Ethics, 1998).

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Do we still need doctors?

Stadig (og måske endog i højere grad) relevant spørgsmål

→"Today, however, the more experienced a doctor is, the less likely they are to compete with a first year phlebotomist in taking blood from that tricky patient, owing to a gradual deskilling in practical procedures. So, what's left? What are doctors for?

→…**The "taskification" of medicine into discrete events**, delivered through a multitude of roles, has not just flattened the hierarchy but jumped all over it. … Many safety concerns are valid, as **medicine is much more than a series of discrete tasks**….

→"Importantly, a conductor knows **when to start and stop**. And when the song ends, whether on a major or a minor note, everyone knows that the music came from the whole orchestra. **But without the person holding the baton, everything would be out of time.**"

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Professioner er under forandringer

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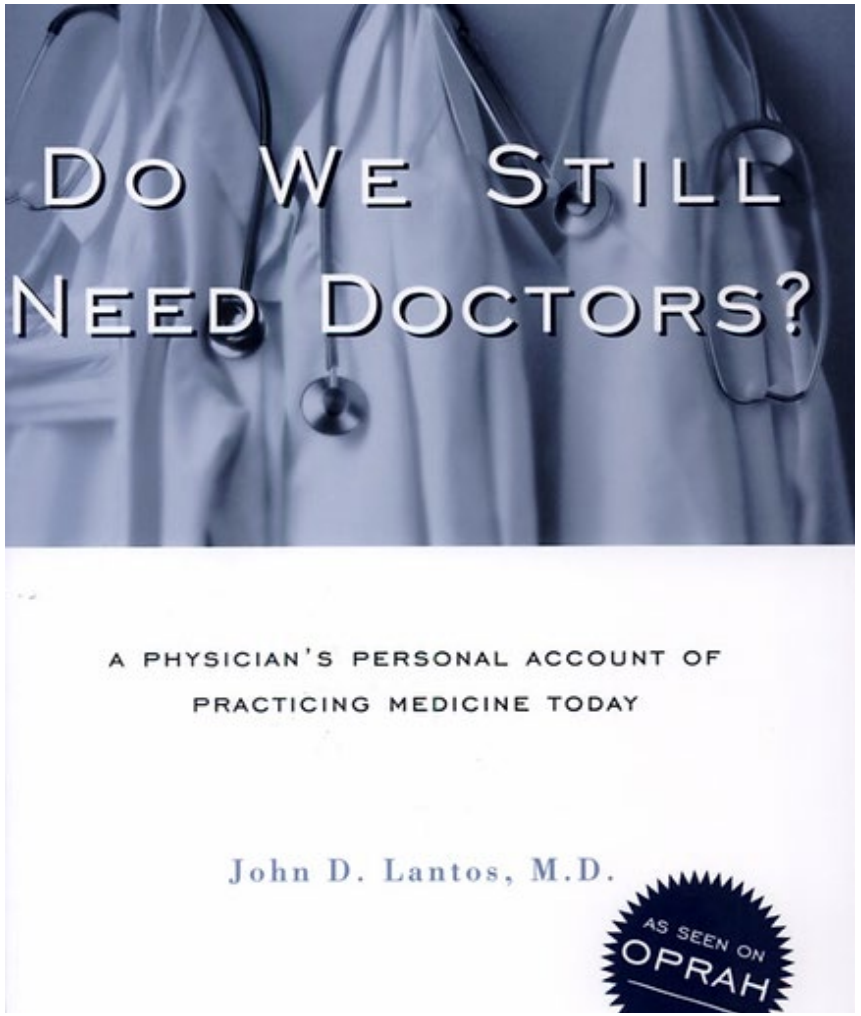
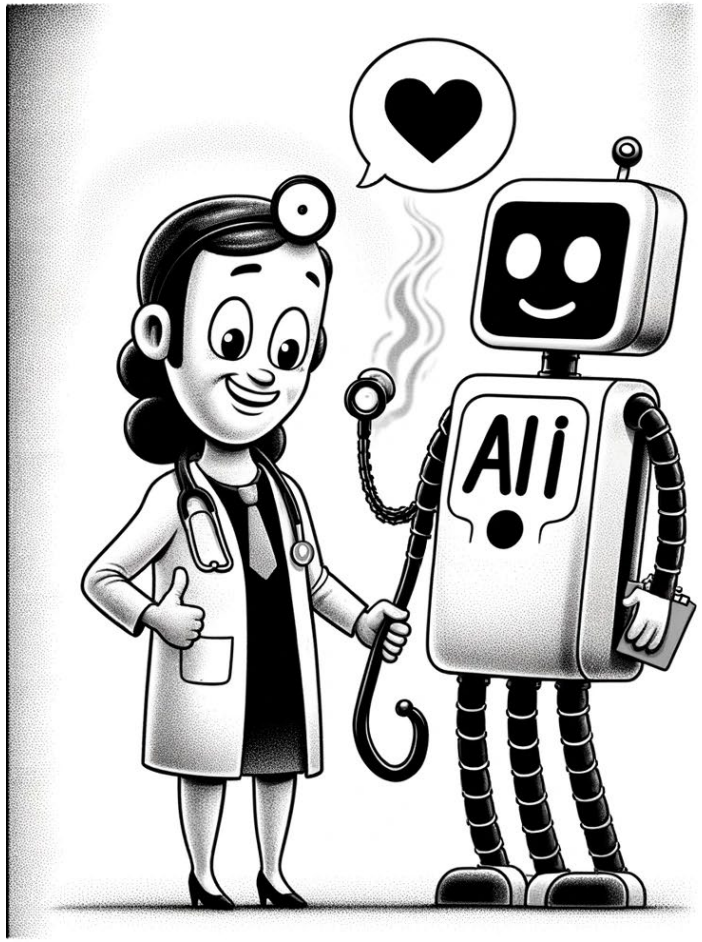
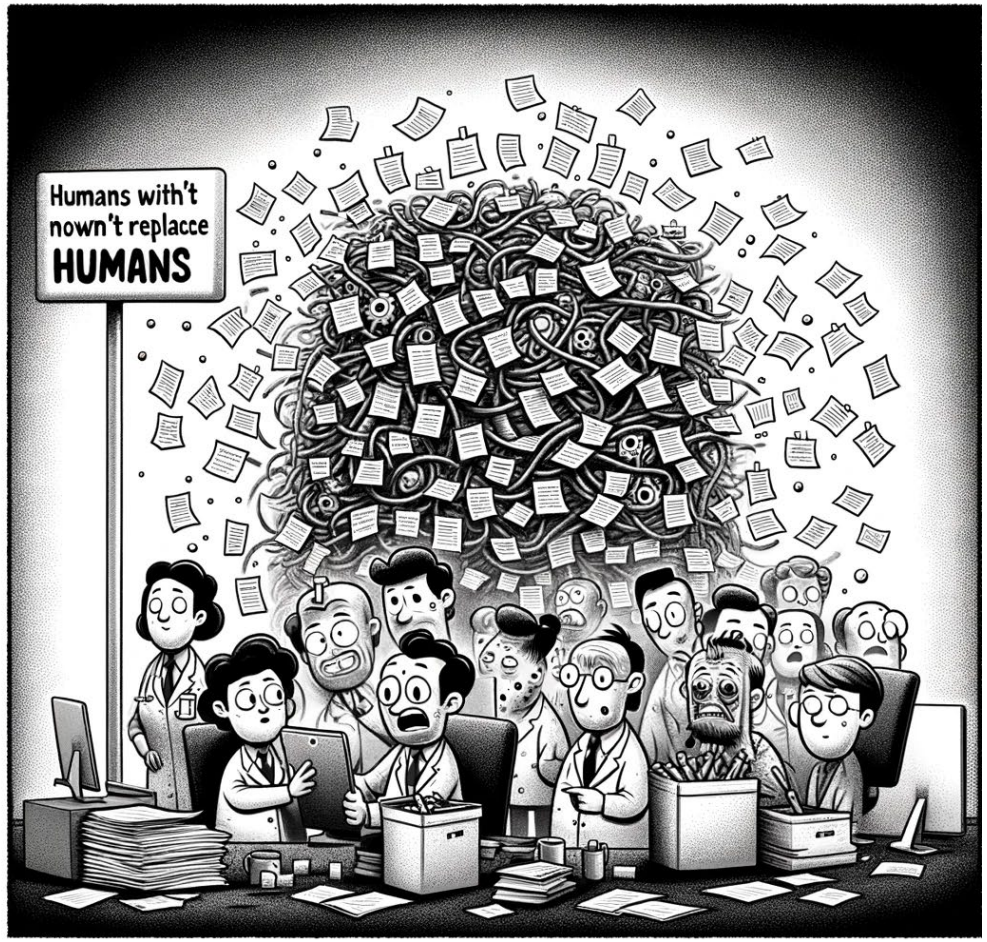


Specialisering og teknologi

→"The need for specialization created a sociologic challenge for medicine … They needed to find a way to maintain authority and self-confidence while admitting that they had limitations and needed help, that others knew more than they did." (p. 21)

AI Won’t Replace Humans — But Humans With AI Will Replace Humans Without AI





Lakhani, 2023. AI Won't Replace Humans - But Humans With AI Will Replace Humans Without AI. Harvard Business Review.
Emmersen et al. 2023. Kunstig intelligens og lægestudiet.
https://ugeskriftet.dk/debat/kunstig-intelligens-og-laegestudiet

Krav til fremtidens sundhedsprofessionelle

Et par konklusioner fra 'Topol-rapporten' (2019):

- Inden for de næste 20 år vil 90% af jobs i NHS kræve **digitale kompetencer**
- Kompetencer til at navigere i **'data-rige' arbejdspladser**
- Digitale teknologier påvirker **balancer mellem centraliserede – specialiserede vs. lokale mindre specialiserede** behandling og ydelser
- **Flytter opgaver, magt og samarbejde mellem professioner**
- Alle ansatte skal have et vist niveau af digitale færdigheder (**digital literacy**), og der er behov for kompetenceudvikling af medarbejdere allerede nu
- Vigtigt at opbygge **læringskultur** samtidigt med introduktionen af digitale teknologier

Kilde: https://topol.hee.nhs.uk/the-topol-review/
Se også: https://www.youtube.com/watch?v=hVyyLMZPJ-o

Erstatte eller komplementere

→Kentaur analogi. Skak: Computer kan vinde over menneske. Menneske + computer kan vinde over computer (cyborg/centaur chess)

→AI kan overtage rutineopgaver (displacement /substitution effect) og løfte komplekse opgaver (productivity/complementarity effect). Menneskelige kompetencer skal være komplementære med teknologiens muligheder.

→Blandet evidens på nuværende tidspunkt (Dranove & Garthwaite 2024)

Se også: https://www.danskdanseteater.dk/forestillinger/kentaur-1 / https://www.lumenprize.com/ | https://en.wikipedia.org/wiki/Advanced_chess

Artificial Intelligence, the Evolution of the Health Care Value Chain, and the Future of the Physician, David Dranove, Craig Garthwaite. in The Economics of Artificial Intelligence: Health Care Challenges, Agrawal, Gans, Goldfarb, and Tucker. 2024

Professioner udvikler sig og udfordres

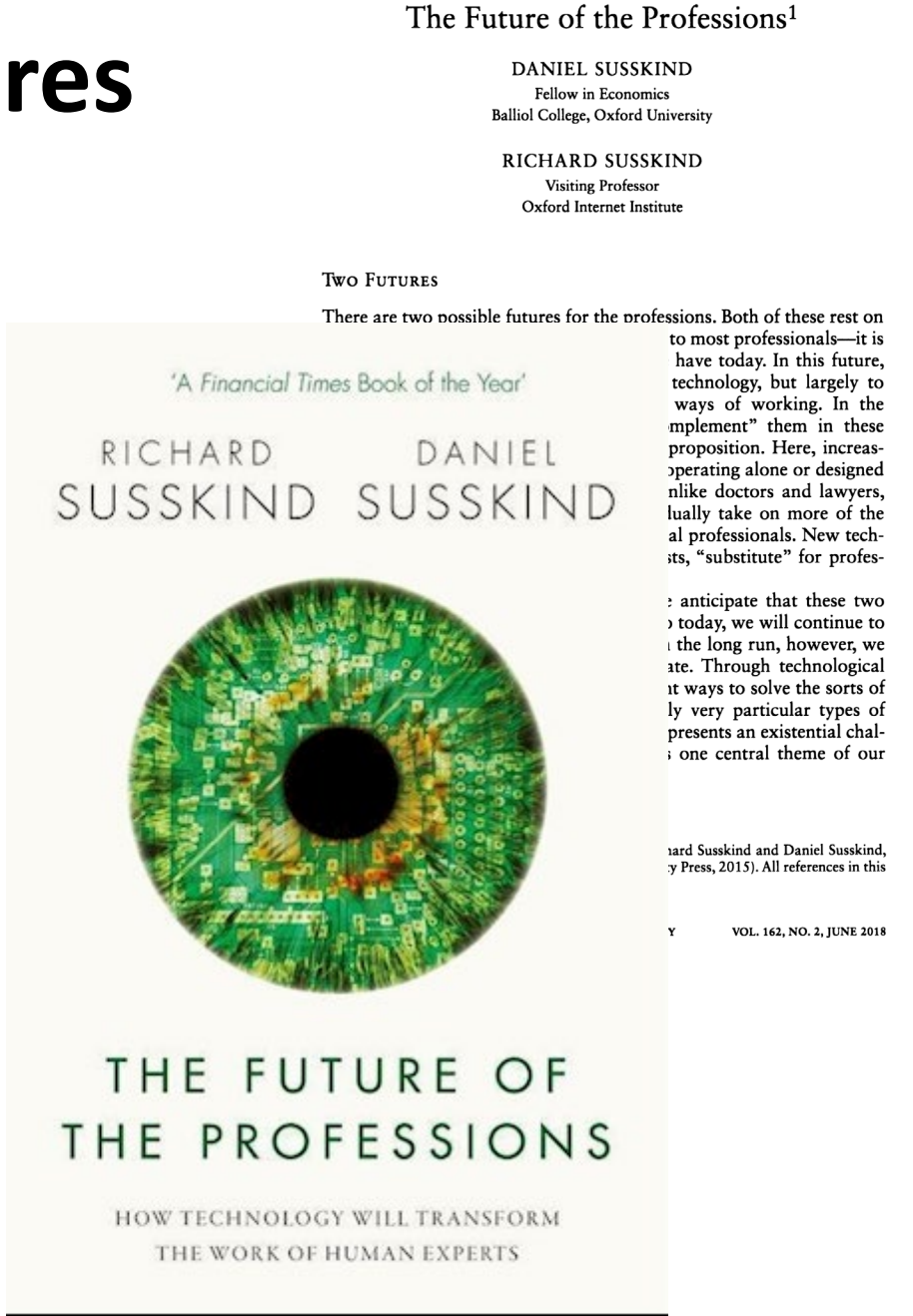
→ Karakteren og anerkendelsen af vidensgrundlaget for professionen har betydning for…

→ **Professionernes autoritet**, legitimitet, status, prestige, indflydelse, regulering, professionens arbejdsområder og –funktioner og grad af autonomi i arbejdet

→ Ny viden, teknologier, automatisering, digitalisering, kunstig intelligens udfordrer professionerne og grænserne mellem professioner

→ **Professionerne ændrer sig**

→ "… we will neither need nor want doctors, teachers, accountants, architects, the clergy, consultants, lawyers, and many others, to work as they did in the 20th century. The Future of the Professions explains how increasingly capable technologies - from telepresence to artificial intelligence - will place **the 'practical expertise' of the finest specialists at the fingertips of everyone, often at no or low cost and without face-to-face interaction.**" (Susskind & Susskind, 2017)



Dynamiske grænser mellem professioner

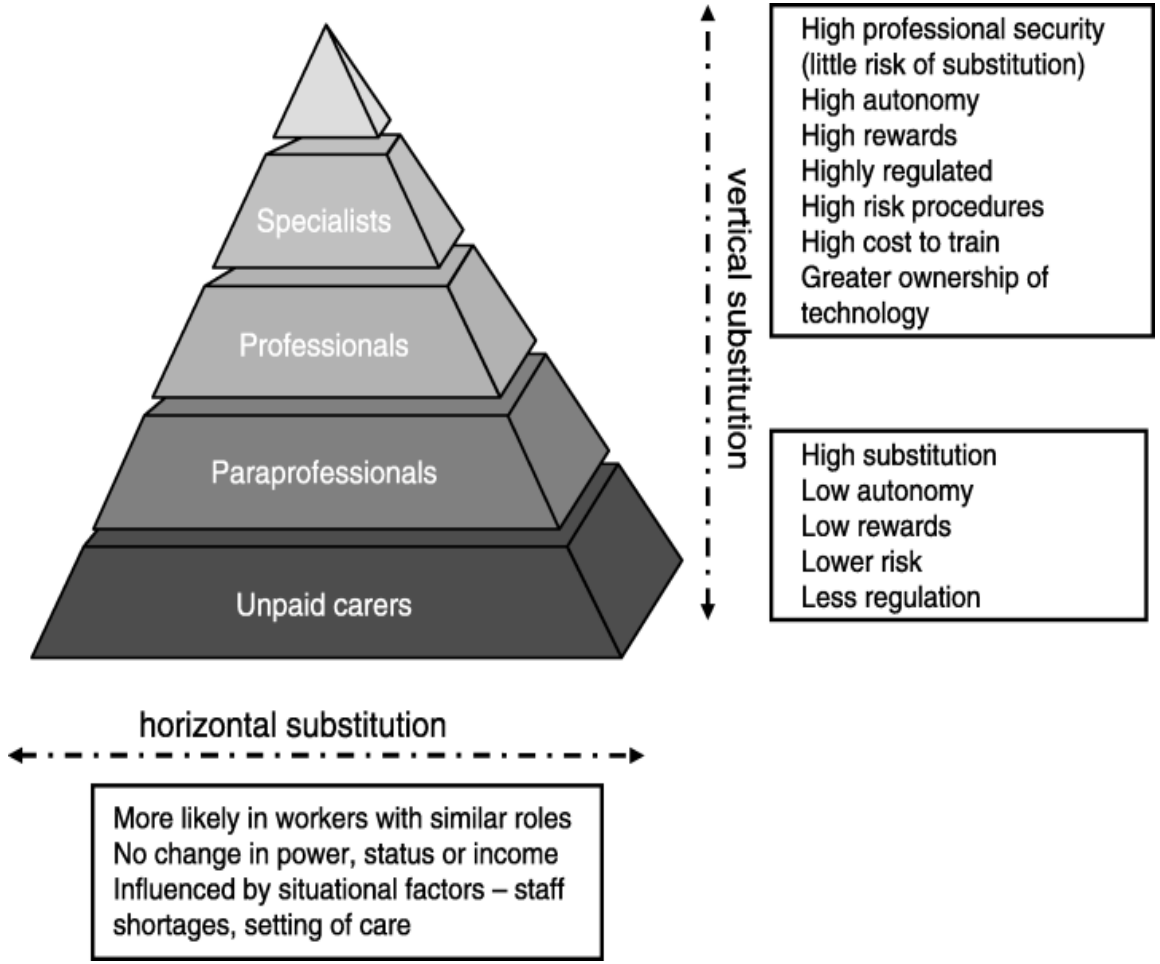
Opgaveflytninger og -glidning

→ **Diversifikation**: når en gruppe udvider deres omfang af tjenester eller ekspertise til at omfatte områder, der måske traditionelt ikke har været inden for deres domæne.

→ **Specialisering:** fokusere på et snævert ekspertiseområde og bliver højt kvalificeret og vidende inden for det specifikke felt

→ **Horisontal substitution:** når professionelle fra ét felt erstatter eller overlapper med dem i et andet på et lignende færdighedsniveau

→ **Vertikal substitution:** opgaver flyttes op eller ned på færdighedstrappen inden for en profession



Nancarrow, Susan A, and Alan M. Borthwick. 2005. 'Dynamic professional boundaries in the healthcare workforce', *Sociology of Health & Illness, 27: 897-919.*

Ledelse af digital og teknologisk transformation

→Transformation af sundhedsvæsenet – digital først

→Tilpasnings- og implementeringskapabilitet

→Forandringsledelse – både lokalt og systemisk

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Prioritering og værdi af sundhedsydelser

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‘Captain of the team’

‘The most expensive medical “technology” is the physician’s pen’


THE AMERICAN ECONOMIC REVIEW

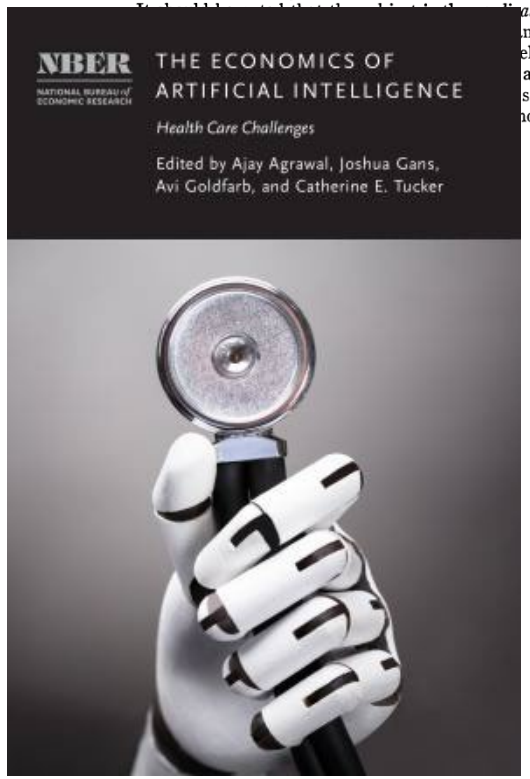
VOLUME LIII DECEMBER 1963 NUMBER 5

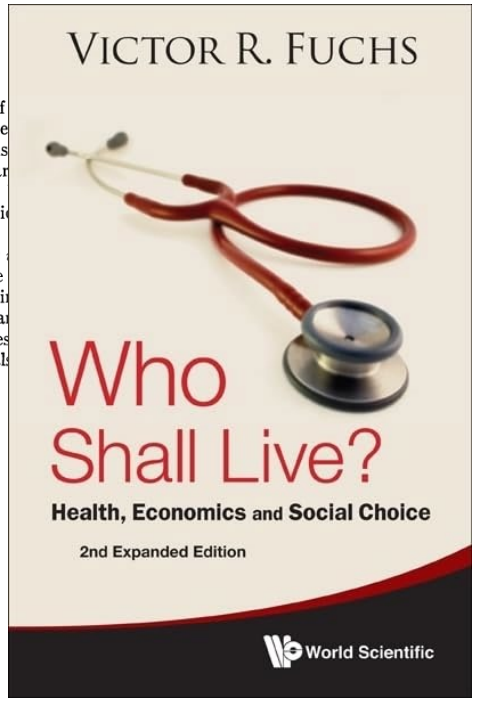
UNCERTAINTY AND THE WELFARE ECONOMICS OF MEDICAL CARE

By KENNETH J. ARROW*

I. *Introduction: Scope and Method*

This paper is an exploratory and tentative study of differentia of medical care as the object of normative e is contended here, on the basis of comparison of obvious tics of the medical-care industry with the norms of welfar that the special economic problems of medical care can as adaptations to the existence of uncertainty in the inci ease and in the efficacy of treatment.





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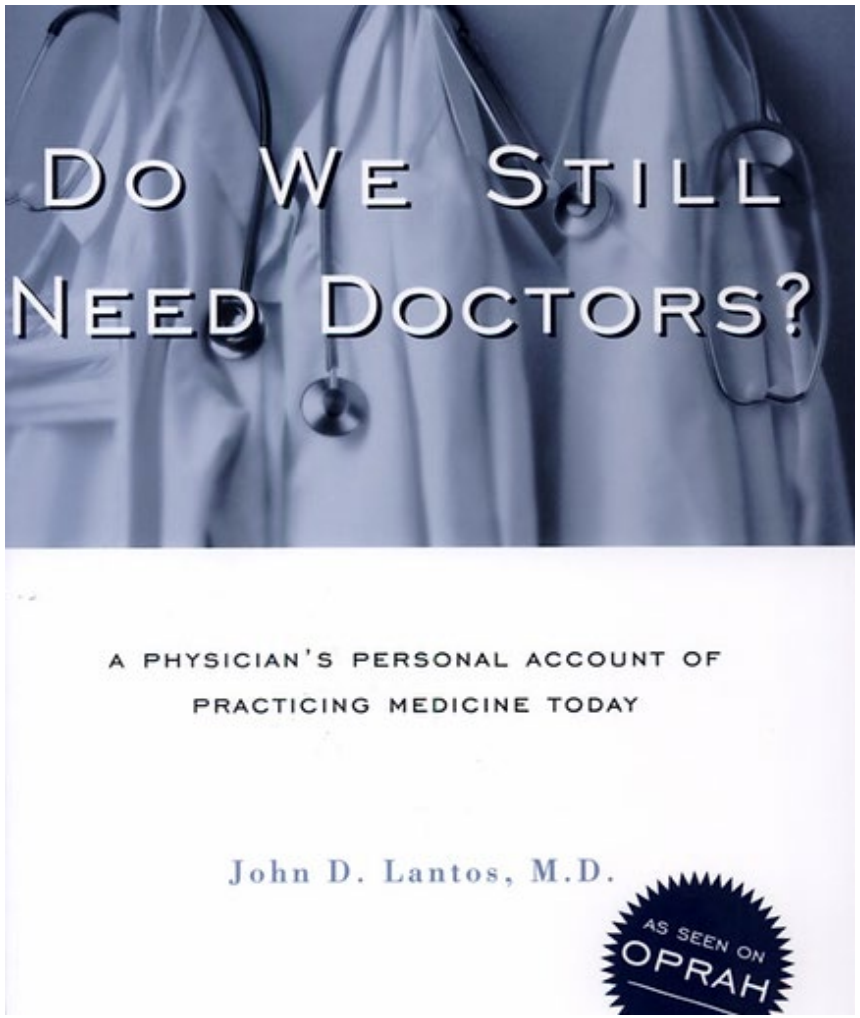

Prioritering og strukturelle rammer

→"…We must realize that the organization of health care delivery systems and the sociology of the medical profession always were and always will be compromises between moral values and political realities. There is nothing modern about modernity." (p. 28)

Et differentieret sundhedsvæsen

Anbefaling 3: Prioritering skal styrkes gennem fælles beslutningstagen, differentierede tilbud og øget egenomsorg (Robusthedskommissionen, 2023)

- → **Differentiering:** Nogle skal have andre tilbud (og mindre) og nogle skal have mere
- → Kræver
  - → Populationsoverblik
  - → Værktøjer og tilgange til visitering / triagering til forskellige tilbud
  - → Organisationsændringer
  - → Systematisk patientinddragelse og fælles beslutningstagning
  - → Ændringer i retningslinjer, kvalitetsstandarder, kvalitetsdatabaser, formulering af rettigheder ….
  - → Politisk vilje og mod

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‘Less is more’

→Studie af behandling, mens de mest erfarne hjertelæger er til kongresser
→Der bliver udført færre procedurer på disse dage
→Der er en højere overlevelse
→Dette gælder også (eller især) for højrisikopatienter

Original Investigation | LESS IS MORE

Mortality and Treatment Patterns Among Patients Hospitalized With Acute Cardiovascular Conditions During Dates of National Cardiology Meetings

Anupam B. Jena, MD, PhD; Vinay Prasad, MD; Dana P. Goldman, PhD; John Romley, PhD

IMPORTANCE Thousands of physicians attend scientific meetings annually. Although hospital physician staffing and composition may be affected by meetings, patient outcomes and treatment patterns during meeting dates are unknown.

OBJECTIVE To analyze mortality and treatment differences among patients admitted with acute cardiovascular conditions during dates of national cardiology meetings compared with nonmeeting dates.

DESIGN, SETTING, AND PARTICIPANTS Retrospective analysis of 30-day mortality among Medicare beneficiaries hospitalized with acute myocardial infarction (AMI), heart failure, or cardiac arrest from 2002 through 2011 during dates of 2 national cardiology meetings compared with identical nonmeeting days in the 3 weeks before and after conferences (AMI, 8570 hospitalizations during 82 meeting days and 57 471 during 492 nonmeeting days; heart failure, 19 282 during meeting days and 11 4591 during nonmeeting days; cardiac arrest, 1564 during meeting days and 9580 during nonmeeting days). Multivariable analyses were conducted separately for major teaching hospitals and nonteaching hospitals and for low- and high-risk patients. Differences in treatment utilization were assessed.

EXPOSURES Hospitalization during cardiology meeting dates.

MAIN OUTCOMES AND MEASURES Thirty-day mortality, procedure rates, charges, length of stay.

RESULTS Patient characteristics were similar between meeting and nonmeeting dates. In teaching hospitals, adjusted 30-day mortality was lower among high-risk patients with heart failure or cardiac arrest admitted during meeting vs nonmeeting dates (heart failure, 17.5% [95% CI, 13.7%-21.2%] vs 24.8% [95% CI, 22.9%-26.6%]; $P < .001$; cardiac arrest, 59.1% [95% CI, 51.4%-66.8%] vs 69.4% [95% CI, 66.2%-72.6%]; $P = .01$). Adjusted mortality for high-risk AMI in teaching hospitals was similar between meeting and nonmeeting dates (39.2% [95% CI, 31.8%-46.6%] vs 38.5% [95% CI, 35.0%-42.0%]; $P = .86$), although adjusted percutaneous coronary intervention (PCI) rates were lower during meetings (20.8% vs 28.2%; $P = .02$). No mortality or utilization differences existed for low-risk patients in teaching hospitals or high- or low-risk patients in nonteaching hospitals. In sensitivity analyses, cardiac mortality was not affected by hospitalization during oncology, gastroenterology, and orthopedics meetings, nor was gastrointestinal hemorrhage or hip fracture mortality affected by hospitalization during cardiology meetings.

CONCLUSIONS AND RELEVANCE High-risk patients with heart failure and cardiac arrest hospitalized in teaching hospitals had lower 30-day mortality when admitted during dates of national cardiology meetings. High-risk patients with AMI admitted to teaching hospitals during meetings were less likely to receive PCI, without any mortality effect.

Editor's Note page 245

Supplemental content at jamainternalmedicine.com

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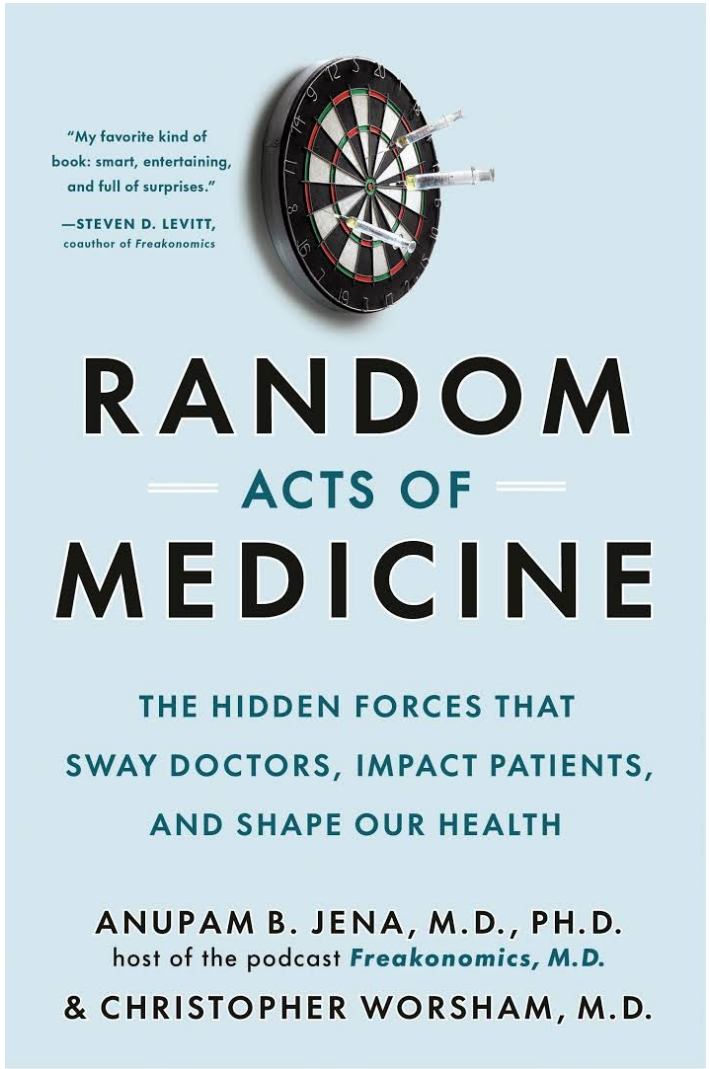
Corresponding Author: Anupam B. Jena, MD, PhD, Department of Health Care Policy, Harvard Medical School, 180 Longwood Ave, Boston, MA 02115 (jena@hcp.med.harvard.edu).

JAMA Intern Med. 2015;175(2):237-244. doi:10.1001/jamainternmed.2014.6781
Published online December 22, 2014.



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Faglig ledelse

‘Lederens forsøg på at facilitere en fælles forståelse af professionel kvalitet og realisere dette i opgaveløsningen’

- **Skabe overensstemmelse mellem faglige normer og organisatoriske mål**. Fælles forståelse af professionel kvalitet i organisationen, som sætter en klar retning for den professionelle indsats i overensstemmelse med organisatoriske mål
- **Udvikle faglig viden** til at understøtte organisatorisk målopfyldelse
- **Aktivere faglige normer og viden i den professionelle praksis**

Kilde: Lund, C.S. (2021), “Faglig ledelse i offentlige organisationer: Et multilevel studie af relevans og forudsætninger blandt afdelingssygeplejersker og sygeplejersker”, Politica, Vol. 53 No. 4, pp. 335–357. | Grøn, CH & Møller, AM 2019, 'Faglig ledelse: Hvad er det? Og hvordan ser det ud i praksis?', Ledelse i Morgen - Tidsskrift for pædagogisk ledelse, bind 23, nr. 1. | Møller & Grøn. Faglig ledelse – at lede faglig og fællesskab for at sikre faglige skøn, begrundede prioriteringer og håndtering af følelsesmæssige pres. Lederliv, 2021.

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Lægers rolle i udviklingen af sundhedsvæsenet

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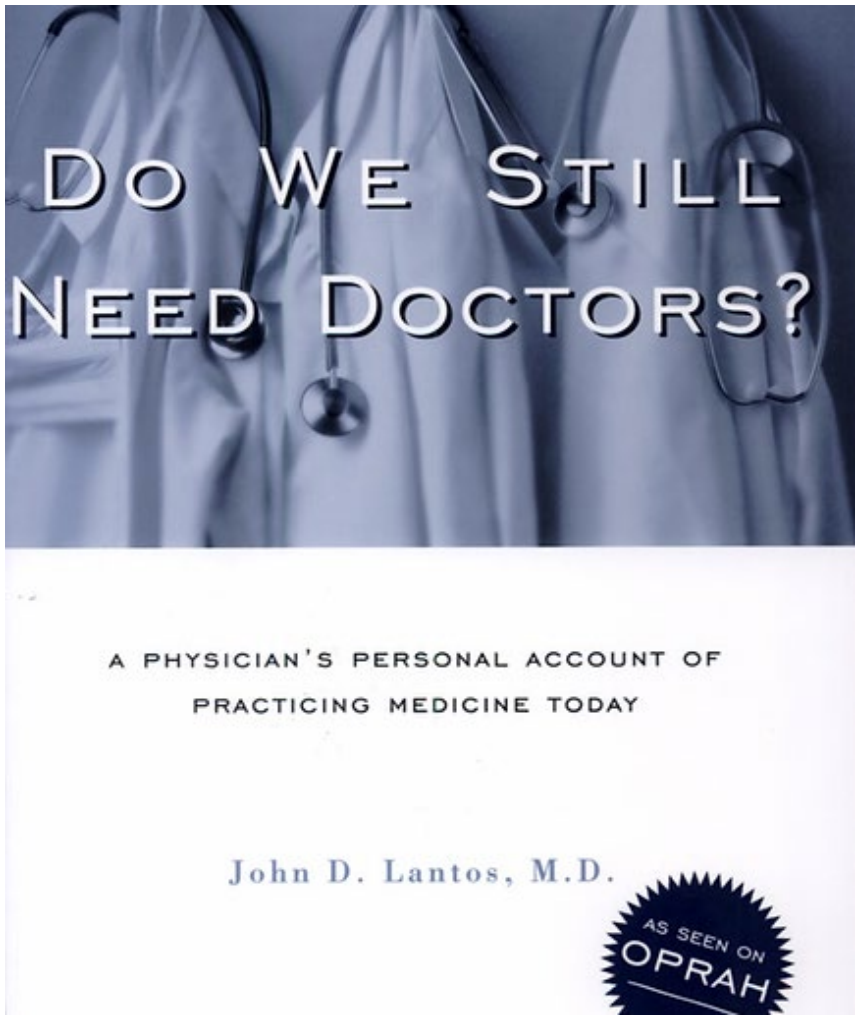


Lægelig ledelse og det samlede sundhedsvæsen

→"We can devise systems to allocate resources, but we also need to think about how we can allocate the opportunity to participate in the discussion. **We can train medical technicians to transplant hearts and supplant kidneys, but we will also need to train doctors who can think about goals, purposes, and directions.**" (p. 193)

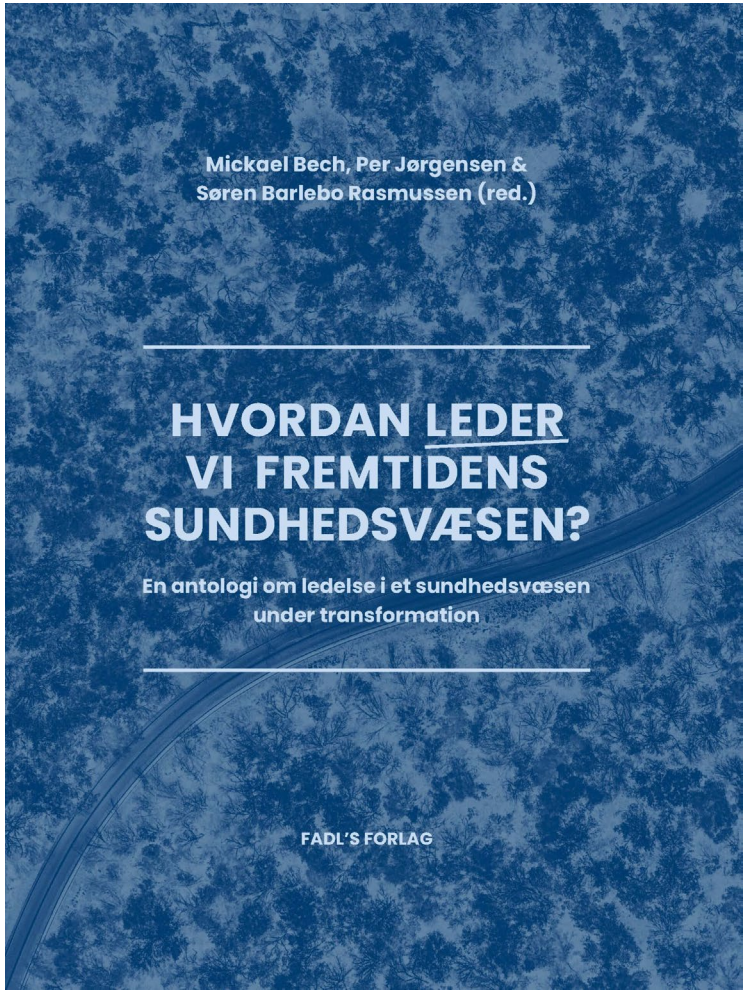
Nutidens ledelse kræver (mere) strategisk tænkning

→Systemtænkning, strategisk udsyn og organisationsbevidsthed

→Divergent tankegang, reframing og dilemmahåndtering

→Operationel strategiformulering samt fokus og prioritering

→Politisk legitimitet og opbakning



Bech, M & Barlebo Rasmussen, S 2024, Nutidens ledelse kræver (mere) strategisk tænkning. i M Bech, P Jørgensen & S Barlebo Rasmussen (red), Hvordan leder vi fremtidens sundhedsvæsen?: En antologi om ledelse i et sundhedsvæsen under transformation. FADL's Forlag, København, s. 250-267.

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Tak for opmærksomheden

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