Roche Pharmaceuticals

Aarhus University - Medical Innovation Day 2021, October 11th and15th

Introduction to Roche Denmark

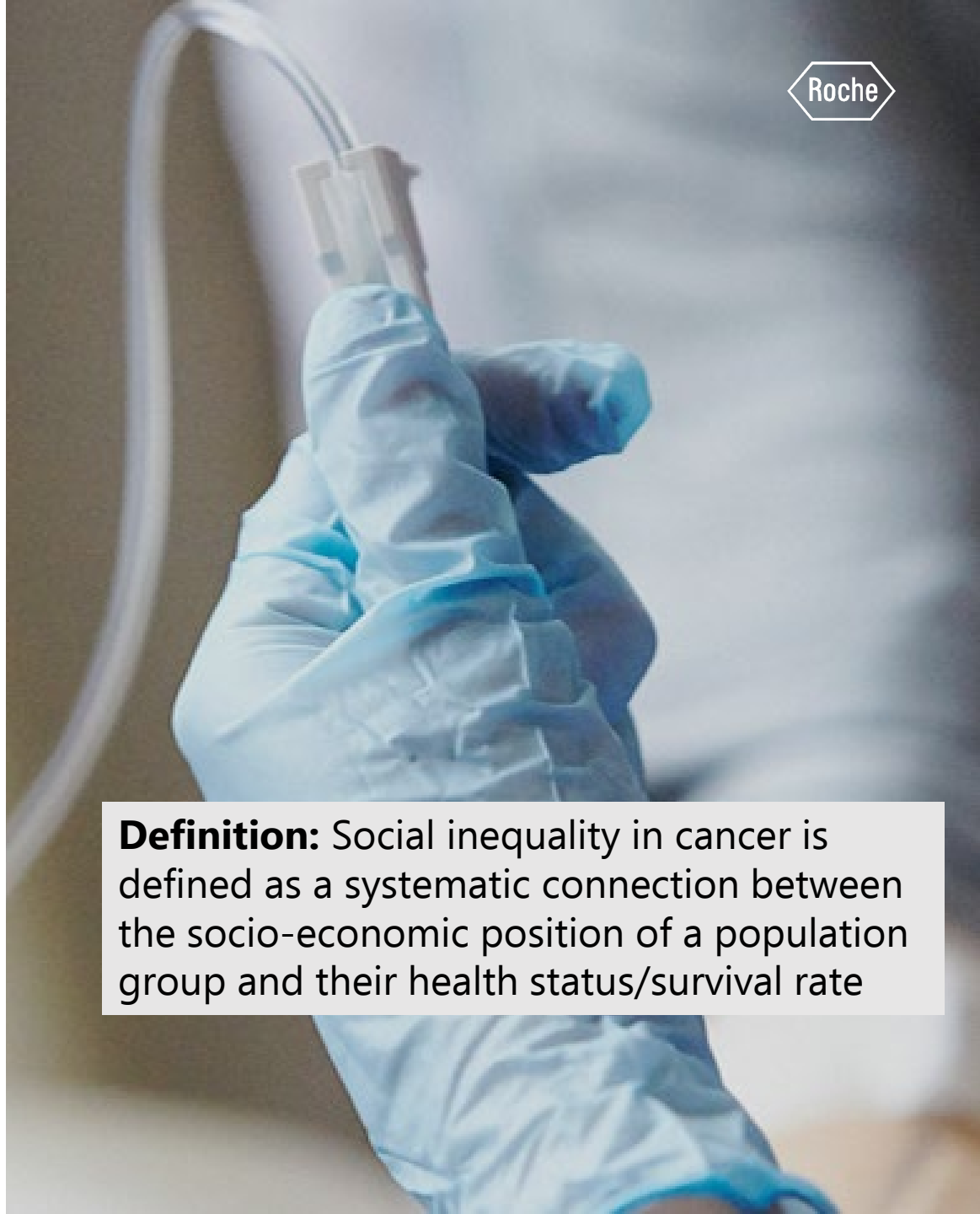
- Roche is the world's largest biotech company with more than 100,000 employees in more than 100 countries.
- In Denmark, Roche has 300 employees divided into three divisions: Pharma, Diagnostics, and RICC (Roche Innovation Center Copenhagen).
- RICC is the former santaris that Roche acquired in 2014 and turned into one of 7 global innovation centers
- Roche is present in the entire Danish healthcare system's value chain – from early research, clinical trials to diagnostics and treatment. Additionally, our approach is based on partnerships, which means that we want to solve problems collaboratively with startups and the public sector.
- Our presence in cross-sector alliances gives us a unique opportunity to contribute to the development of a sustainable healthcare system.

Background information

In 2018, 16,046 Danes died of cancer. If all Danes had the same opportunities for prevention, detection, diagnosis and treatment of cancer as the 20 pct. who are best off, 3,500 of the diagnosed could have survived or lived longer.

In Denmark there is a measurable social inequality in treatment and prevention of cancer. This is especially visible when it comes to types of cancer affected by life style like lung cancer and laryngeal cancer.

To ensure increased quality of life, life extension and potential recovery for all. There is a need to be able to detect cancer earlier, especially in risk groups, and thereby put patients in treatment earlier. Also there is a need to ensure equal access to the best possible treatment for all. It must never be money, address or disease burden that determines what quality of treatment one has access to.



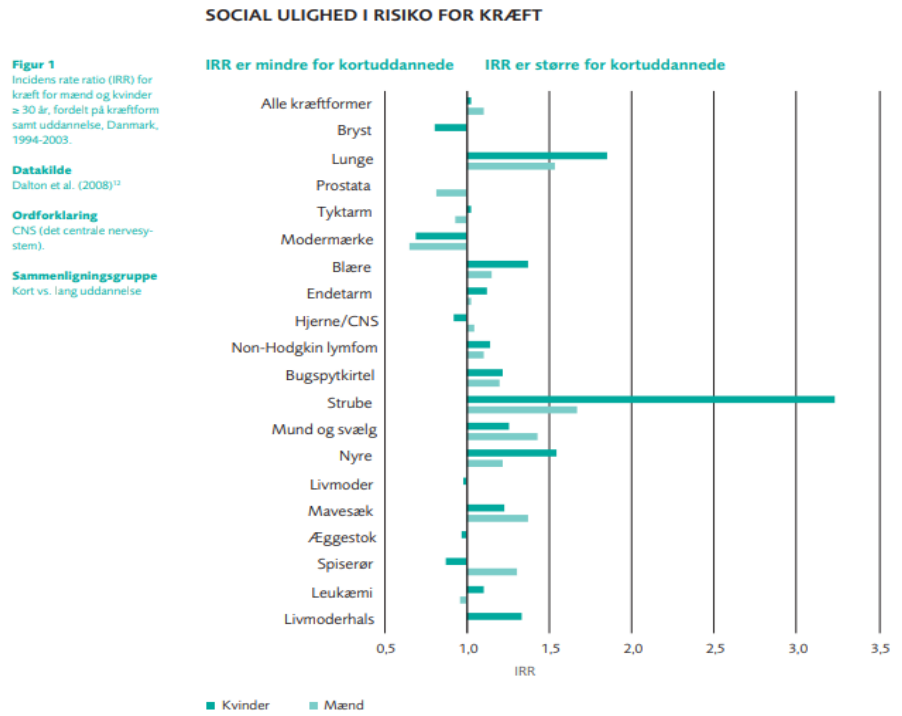
Definition: Social inequality in cancer is defined as a systematic connection between the socio-economic position of a population group and their health status/survival rate

Social inequality in lung cancer

In this challenge we want you to look into how we can fight social inequality in detection and treatment of lung cancer.

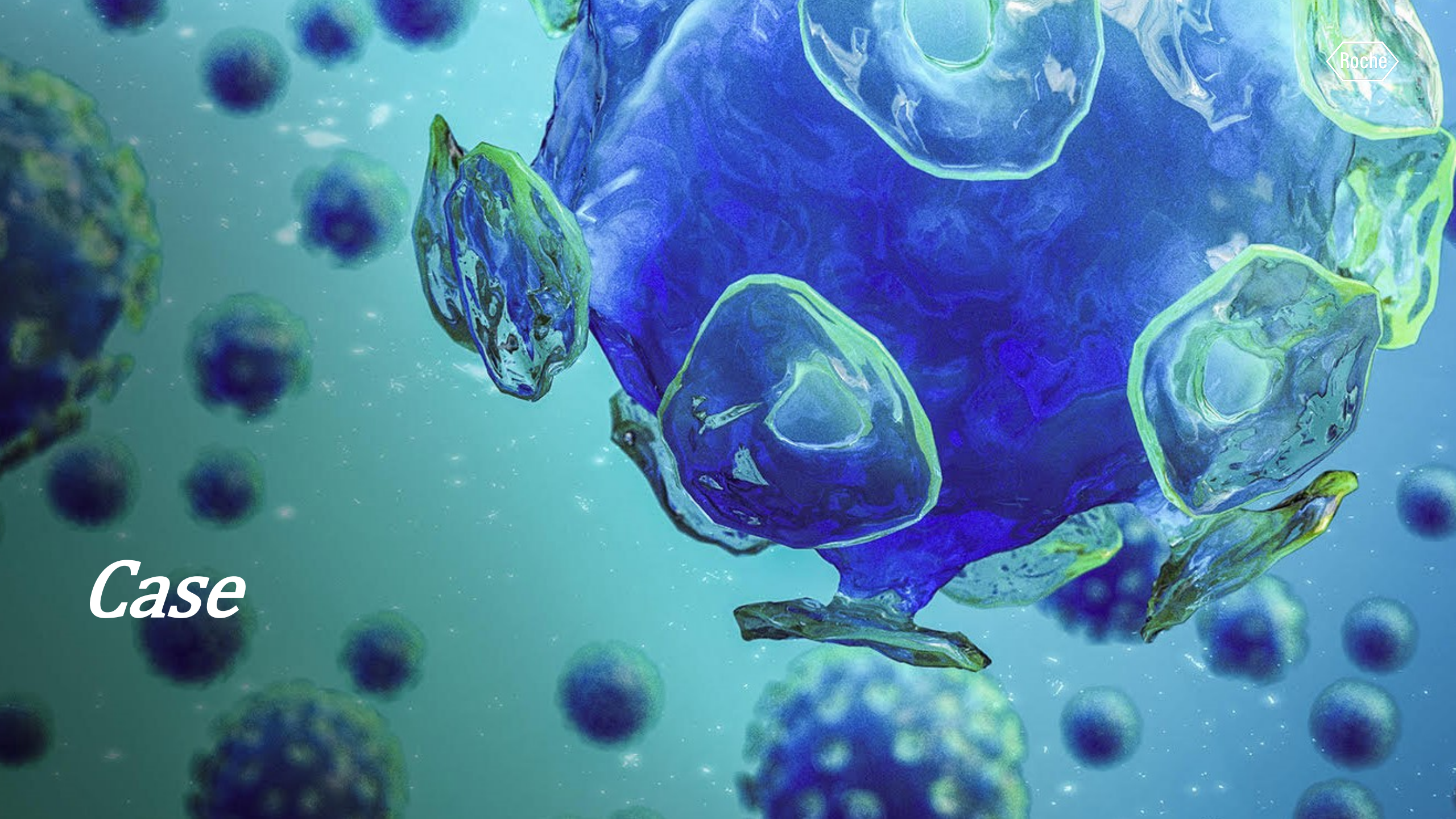
The incidence for lung cancer increases with:

- Lower education and income, especially for tobacco- and other lifestyle-related cancers - early retirement pensioners
- Persons living in rented housing and those living in the smallest dwellings.
- Persons living alone compared to those living with a partner
- Persons living in capital area compared to the rural areas.
- Living alone and having somatic or psychiatric comorbidity



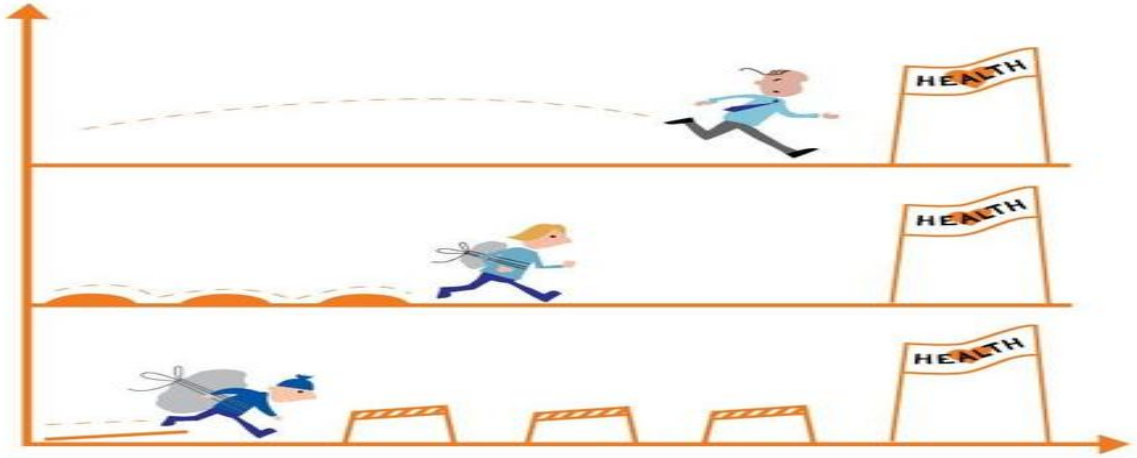
Social inequality in the prognosis of most cancers is observed, despite the equal access to health care in Denmark, with poorer relative survival related to fewer advantages, regardless of how they were measured, often most pronounced in the first year after diagnosis

Source: Daltona el al, https://www.ft.dk/samling/20151/almdel/suu/spm/813/svar/1342303/1663917.pdf

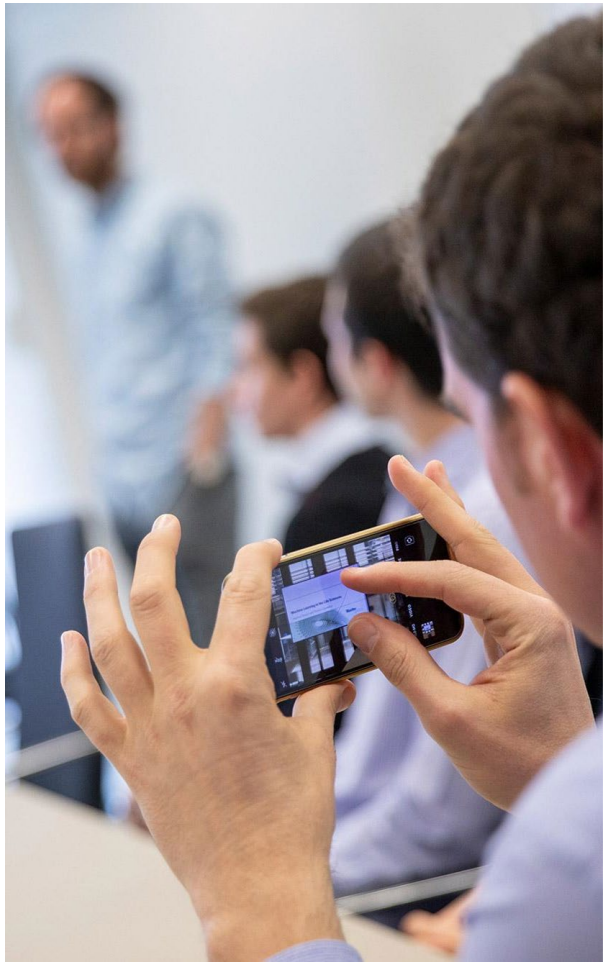


Case

How do we secure social equality and early detection in treatment of lung cancer?



The team may focus on one of these challenges:



- **Understand and Identify Root Causes of Inequities**

How can we identify differences in the overall treatment of cancer and what causes the differences? e.g. when it comes to; waiting time, lifestyle factors during and after treatment, quality of life and symptoms after treatment, and need for rehabilitation and palliation.

- **What are the right interventions?**

What are the right interventions needed to create more equality in the treatment of lung cancer? E.g. targeted at the following areas; lifestyle both before, during, and after treatment, faster assessments, navigation in the health system, optimization of comorbidity during and after treatment.

- **Better use of technology**

How could we enable early diagnosis for all lung cancer patients, and change the patient journey? E.g. By use of AI and big data.

- **Tools and measurers**

What kind of tools would be useful in a screening and prevention program, and
Which initiatives/tools could be used to target the risk group

- **Political recommendations**

Additional Reading

Alliancen mod Social Ulighed i Sundhed (danish)

Socioeconomic Inequalities in Lung Cancer Treatment: Systematic Review and Meta-Analysis

Why are socioeconomic inequalities in receipt of treatment found for lung cancer?

Danish data on Cancer (Cancerregisteret)

https://www.medicalnewstoday.com/articles/304230

https://lungekraeft.com/

Doing now what patients need next