




Impact of COVID-19 pandemic on surgical cancer care disparities according to socioeconomic status

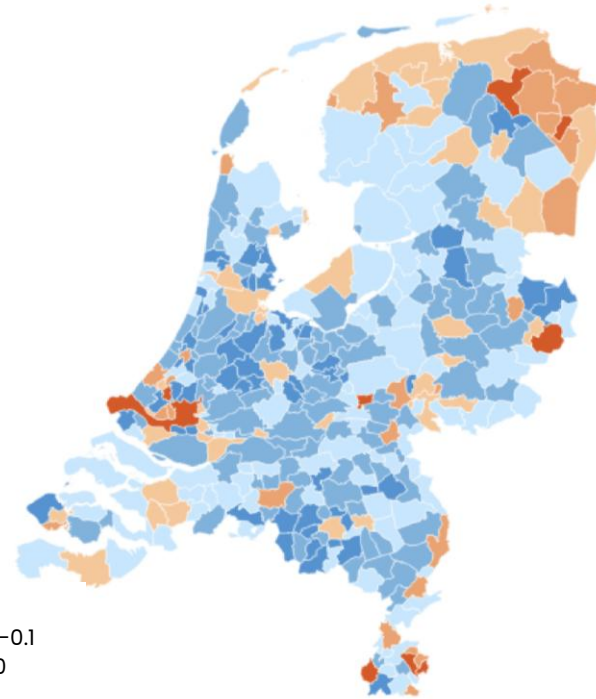
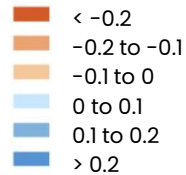
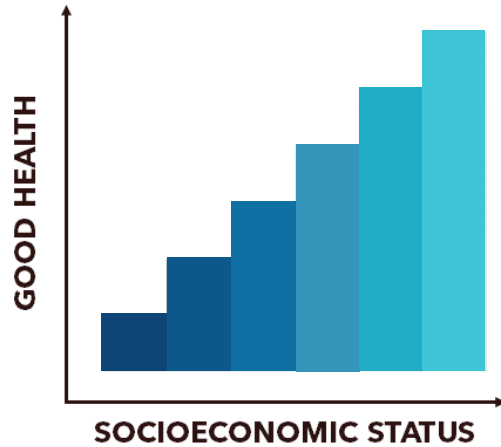
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DISCLOSURE

- No commercial interests
- Research funding by  **ZonMw**

CONTEXT

THE HEALTH-WEALTH GRADIENT



AIM

Impact of **healthcare scarcity**
during the COVID pandemic on
disparities in surgical **cancer** care
in the Netherlands

METHODS

- Population-based cohort study
- Surgical cancer patients

DICA Life saving data



Lung cancer



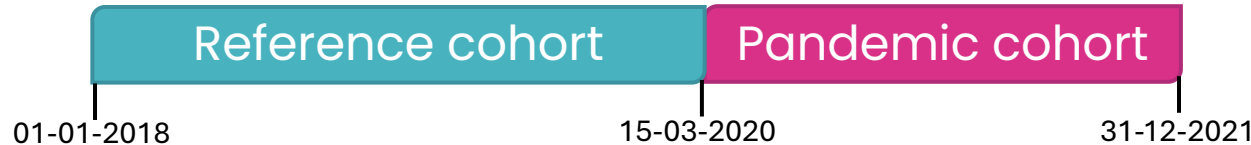
Oesophageal & gastric cancer



Pancreatic cancer



Malignant liver tumours



SocioEconomic Status (SES)

- Postal code
- Statistics Netherlands 2019
 - education
 - labour participation
 - financial welfare

METHODS – OUTCOMES

SES DISTRIBUTION

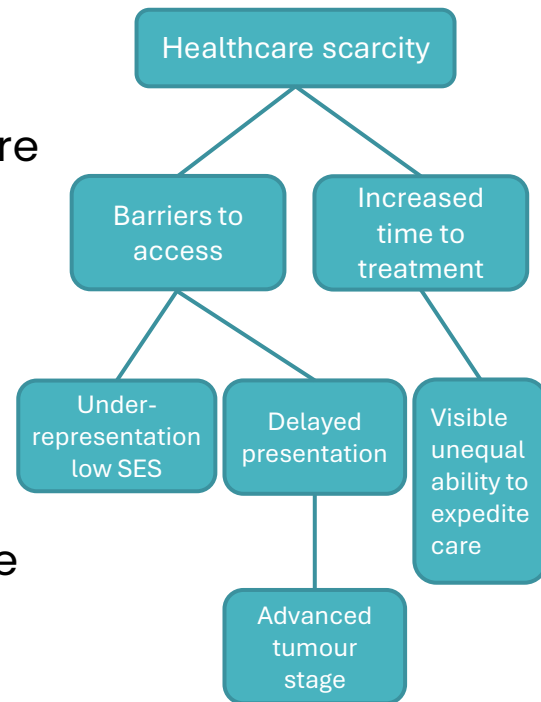
a measure for increased barriers to access care

ADVANCED TUMOUR STAGE

a measure for delayed presentation

TIME TO TREATMENT

a measure for patients' capacity to advocate for expedited care

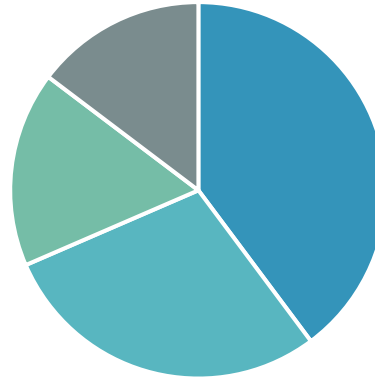


RESULTS

Reference (N = 15,810)



Pandemic (N = 12,299)



- Lung cancer
- Liver tumours
- Oesophageal & gastric cancer
- Pancreatic cancer

RESULTS – SES DISTRIBUTION

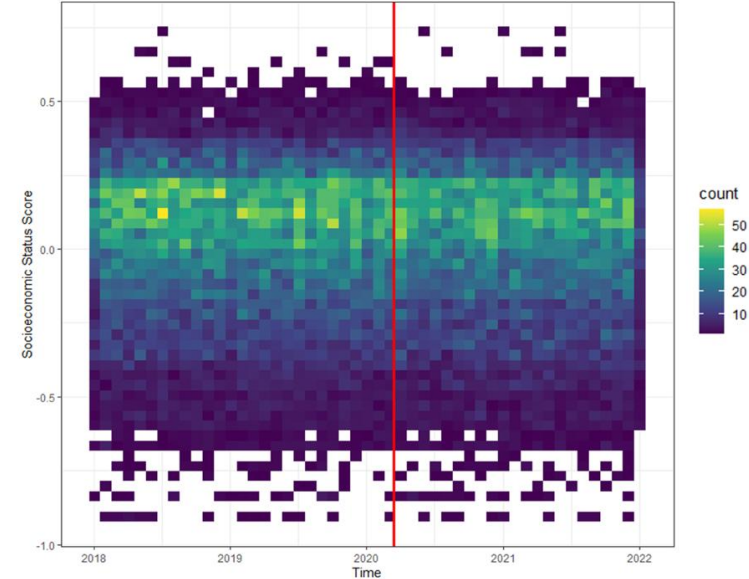
Table 2. SES distribution

	Historic cohort	Pandemic cohort	p-value ¹
Socioeconomic status score (range -1 to 1)	0.058 (-0.120, 0.186)	0.058 (-0.122, 0.187)	0.7
<i>Missing</i>	16%	17%	
Socioeconomic status category			0.6
Low	2,189 (17%)	1,733 (17%)	
Medium	5,342 (40%)	4,062 (40%)	
High	5,672 (43%)	4,387 (43%)	
<i>Missing</i>	16%	17%	

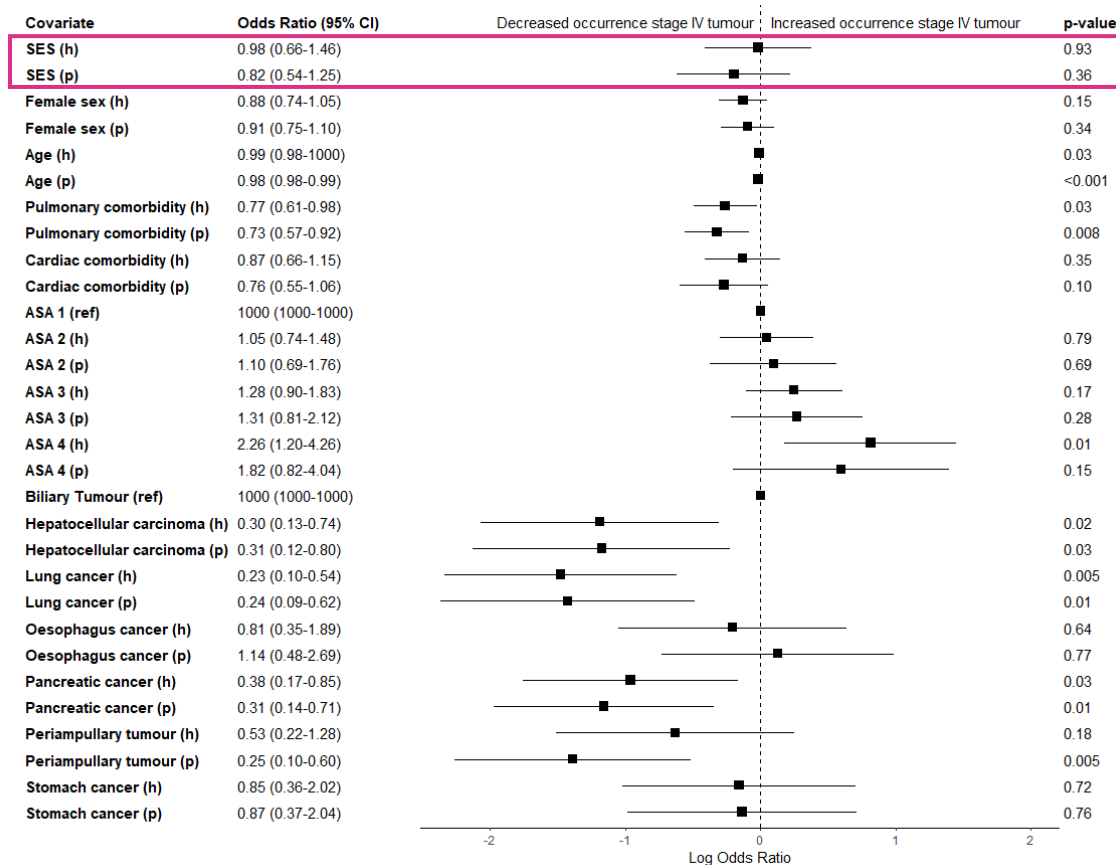
Data are presented as median (IQR) and number (%)

¹ Wilcoxon rank sum test; Pearson's Chi-squared test

Figure 1. Density Heatmap SES distribution



RESULTS – ADVANCED TUMOUR STAGE



RESULTS – TIME TO TREATMENT

Table 3. Time to treatment according to SES (imputed data)

	Low SES		Medium SES		High SES	
	Historic cohort, N = 2,329	Pandemic cohort, N = 1,856	Historic cohort, N = 5,736	Pandemic cohort, N = 4,331	Historic cohort, N = 6,145	Pandemic cohort, N = 4,692
Time to treatment in days	25 (12, 41)	23 (12, 39)	23 (12, 40)	22 (11, 39)	24 (12, 39)	23 (12, 39)
p-value[†]	0.124		0.105		0.638	

[†] Wilcoxon rank sum test; Rubin's rules applied

Limitations

- Only surgical patients
 - lower SES less often receive tumour related treatment¹
 - underrepresentation of advanced tumours
- Timeframe of tumour migration → untill 2023 no tumour migration²
- Oncology priority → in vascular surgery underrepresentation of low SES²

¹ Netherlands Cancer Registry <https://iknl.nl/kanker-in-nederland-ses-rapport-2>

² COVID Surg III research group (not yet published)

CONCLUSIONS

SES DISTRIBUTION → NO DIFFERENCE

no evidence for unequally increased barriers to access care

ADVANCED TUMOUR STAGE → NO ASSOCIATION WITH SES

no evidence for SES differences in delayed presentation

TIME TO TREATMENT → SHORTER FOR EVERYONE

hypothesised disparities in patients' capacity to advocate for expedited care not visible



THANK YOU



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saving
data
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