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SOCIOECONOMIC AND DEMOGRAPHIC DISPARITIES IN BREAST CANCER STAGE AT PRESENTATION AND SURVIVAL IN SWITZERLAND

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Background A major goal of health care systems is to improve health equally in all groups of the population. However, socioeconomic and socio-demographic health inequalities in breast cancer (BC) detection and survival have been observed in many countries.

Methods We explored socioeconomic and socio-demographic disparities in BC stage at presentation and survival in female BC patients from population-based cancer registries anonymously linked to the Swiss National Cohort (SNC). Tumour stage was classified according to SEER summary stage (in situ/localized/regional/distant). We used highest education level attained from the SNC to characterize socioeconomic position (SEP) in 3 levels (low/middle/high). Further characteristics included in the analyses were age, living in a canton with organized mammography screening (yes/no), civil status and Swiss nationality. We used ordered logistic regression models to analyse factors associated with BC stage at presentation and competing risk regression models for factors associated with death from BC.

Results Odds of later-stage BC were significantly increased for low SEP (odds ratio (OR) 1.26, 95%CI 1.12-1.41) and middle SEP women (OR 1.11, 95%CI 1.01-1.23) compared to women of high SEP. Further, women living in a canton without organized mammography screening, women diagnosed outside the screening age and non-married women were more often diagnosed at later stages. Women of low SEP experienced an increased risk of dying from BC (sub-hazard ratio 1.28, 95%CI 1.10-1.50) compared to women of high SEP. Notably, these BC-specific survival differences remained after controlling for stage at presentation and/or other sociodemographic factors.

Conclusion It is of concern that these SEP gradients exist in a country with universal health insurance coverage, high health-related expenditures and one of the highest life expectancies in the world. Appropriate intervention strategies are needed to reduce socioeconomic and socio-demographic inequalities in BC stage at presentation and survival.

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THE IMPACT OF SOCIOECONOMIC POSITION ON STAGE AT DIAGNOSIS AND SURVIVAL IN COLORECTAL CANCER PATIENTS IN SWITZERLAND

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Background International studies, outside Switzerland, have reported socioeconomic inequalities in colorectal cancer (CRC) stage at diagnosis and survival. This study aims to investigate the association between socioeconomic position (SEP) and CRC stage at diagnosis and survival among people living in Switzerland.

Methods This study used population-based CRC data from seven Swiss cantonal cancer registries 2001-2008 (N=10,088) anonymously linked to the Swiss National Cohort (SNC). Follow-up and cause-specific death information was available until the end of 2013. We used education to estimate SEP (low/middle/high). The association between cancer stage at presentation and SEP has been investigated using logistic regressions (UICC stage I versus II-IV). Models included the following covariates: cancer location (colon/rectum), sex, age at diagnosis (30-49/50-64/65-74/75-84 years), civil status (single/married/widowed/divorced), urbanity of residence (urban/peri-urban/rural), language region (German-/French-/Italian-speaking) and nationality (Swiss/non-Swiss). Survival was analysed using competing risk regressions reporting sub-hazard ratios (SHRs) for the risk of dying due to CRC.

Results We observed a social gradient for later stage CRC with adjusted odds ratios (ORs) of 1.05 (95%CI 0.93-1.19) and 1.17 (95%CI 1.01-1.35) for middle and low SEP people. People below 50 years (OR 1.24, 95%CI 1.00-1.53) and above 75 years of age (OR 1.19, 95%CI 1.04-1.35), and single compared to married people (OR 1.29, 95%CI 1.07-1.54) showed elevated risks of being diagnosed at later stages. CRC patients with low SEP (SHR 1.39, 95%CI 1.20-1.60) showed increased hazards of dying due to CRC (SHR 1.13, 95%CI 1.02-1.25). However, after additional adjustment for stage at diagnosis, observed survival inequalities disappeared.

Conclusions In Switzerland, people of low SEP are more likely to be diagnosed at later CRC stages than those of high SEP. In addition, socioeconomic inequalities in survival after CRC diagnosis have been observed. However, survival inequalities could be sufficiently explained by stage at diagnosis arguing against substantial inequalities in CRC treatment.