

Time trends in oesophageal and gastric cancer according to histology and anatomical location in Switzerland, 1982-2011

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BACKGROUND

Studies in developed countries have reported substantial increases in the incidence of adenocarcinomas (ACs) of the oesophagus and/or gastric cardia accompanied with stabilizing or declining incidence rates for oesophageal squamous cell carcinoma (SCCs) [1,2]. However, there are substantial variations in both incidence rates and trends of ACs and SCCs between countries and within regions. Earlier Swiss figures on this topic were based on data from single cantons or pathology labs only [1,3,4]. Therefore, this study aims to investigate this topic for Switzerland combining data from 11 Swiss cancer registries (CRs) to allow generalizability of findings on the national level.

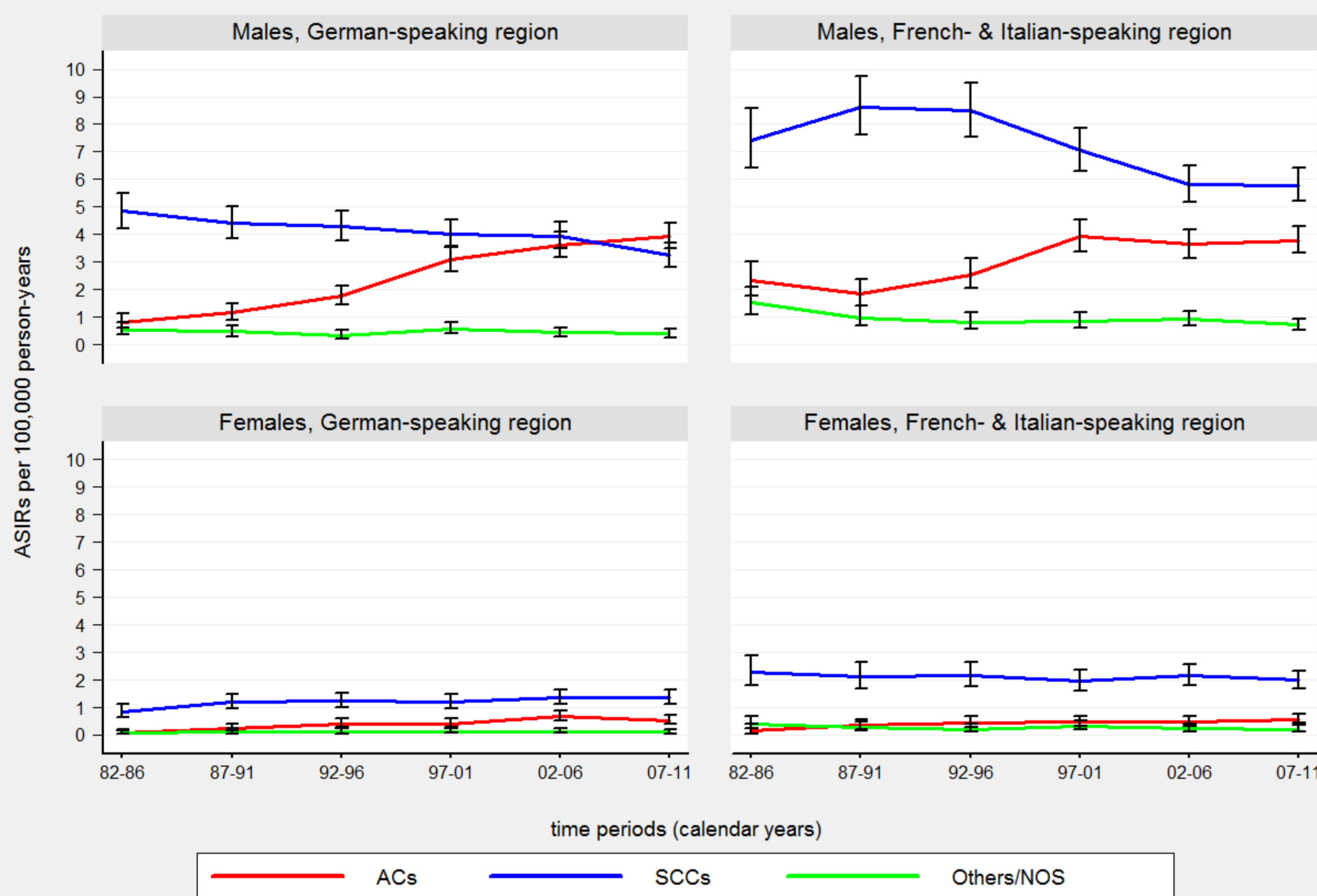
DATA & METHODS

Oesophageal (OC) and gastric cancer cases (GC) were obtained from 11 Swiss CRs. Incident cases were grouped by histological subtype into ACs, SCC or other subtype/not otherwise specified (NOS). Cases were categorized by location as upper/middle third of the oesophagus, lower third of the oesophagus, gastric cardia, non-gastric cardia or overlapping/NOS.

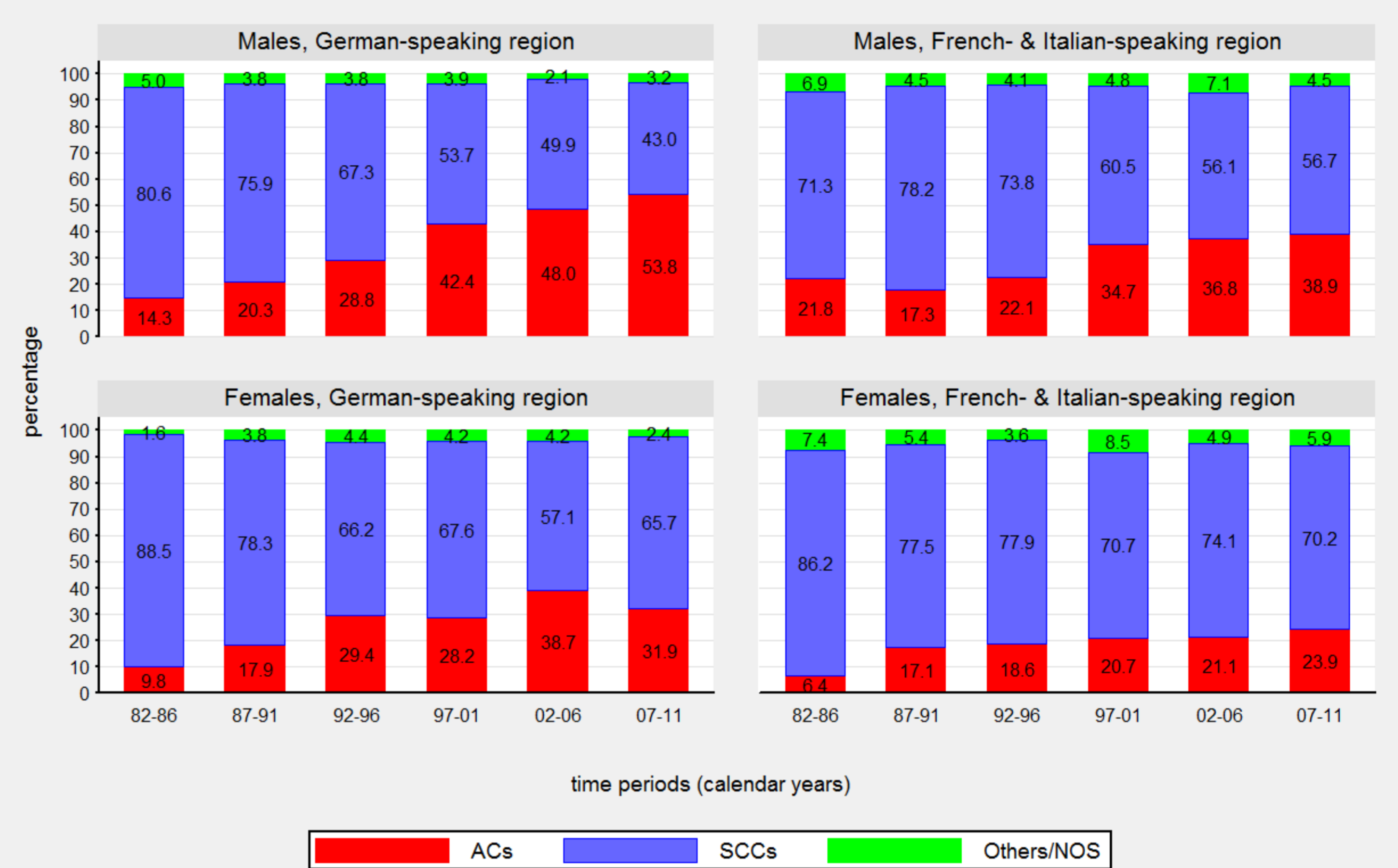
To assess trends, 5-year and annual age-standardized incidence rates (ASIRs European standard) and estimated annual percentage changes (EAPC) were calculated. All analyses were stratified by sex and language-region (German-speaking part (GSP), French/Italian-speaking part (FISP)).

RESULTS

Time trends in incidence rates of histologic subtypes of oesophageal cancer

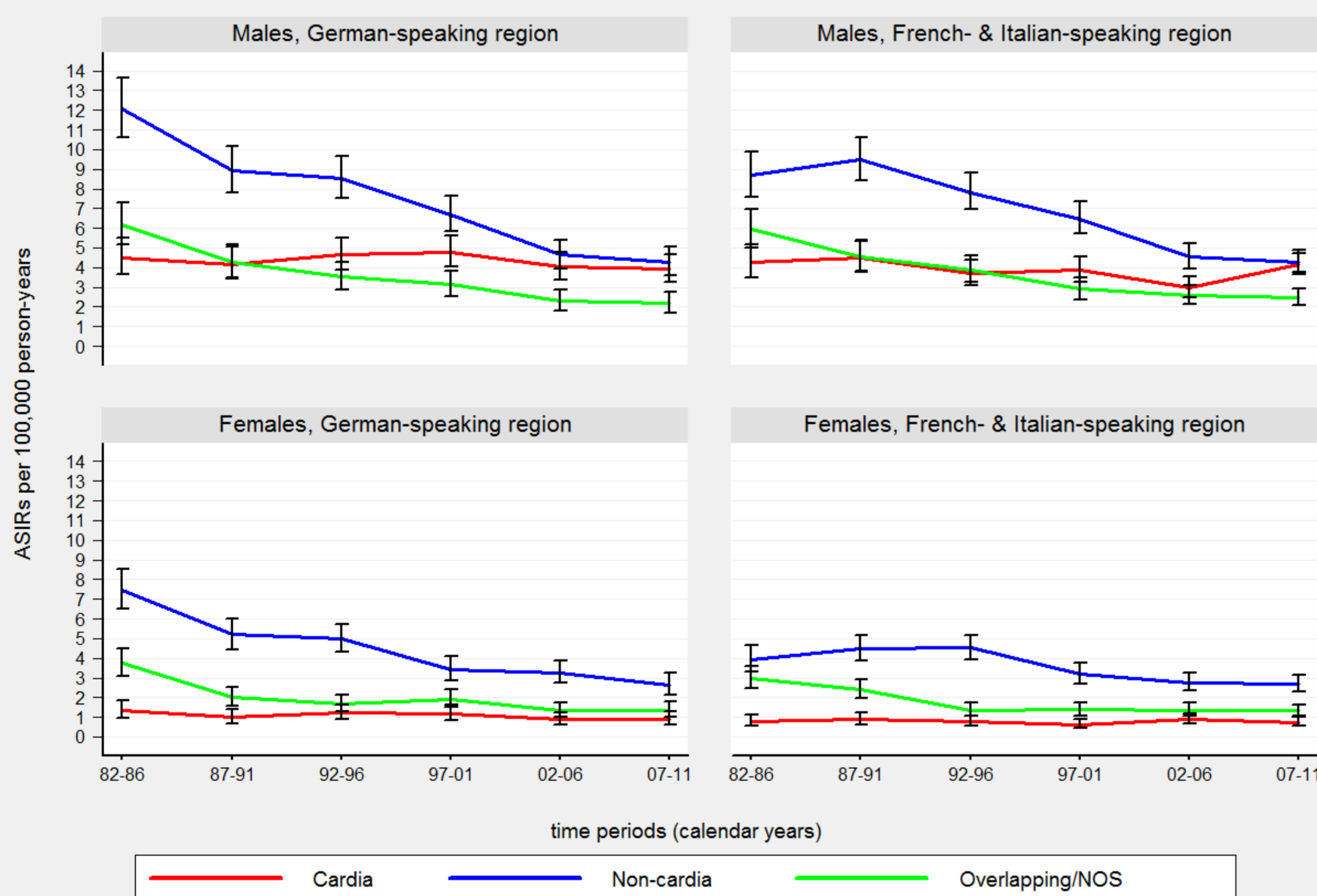


Time trends in proportions of incident oesophageal cancer cases by histologic subtype

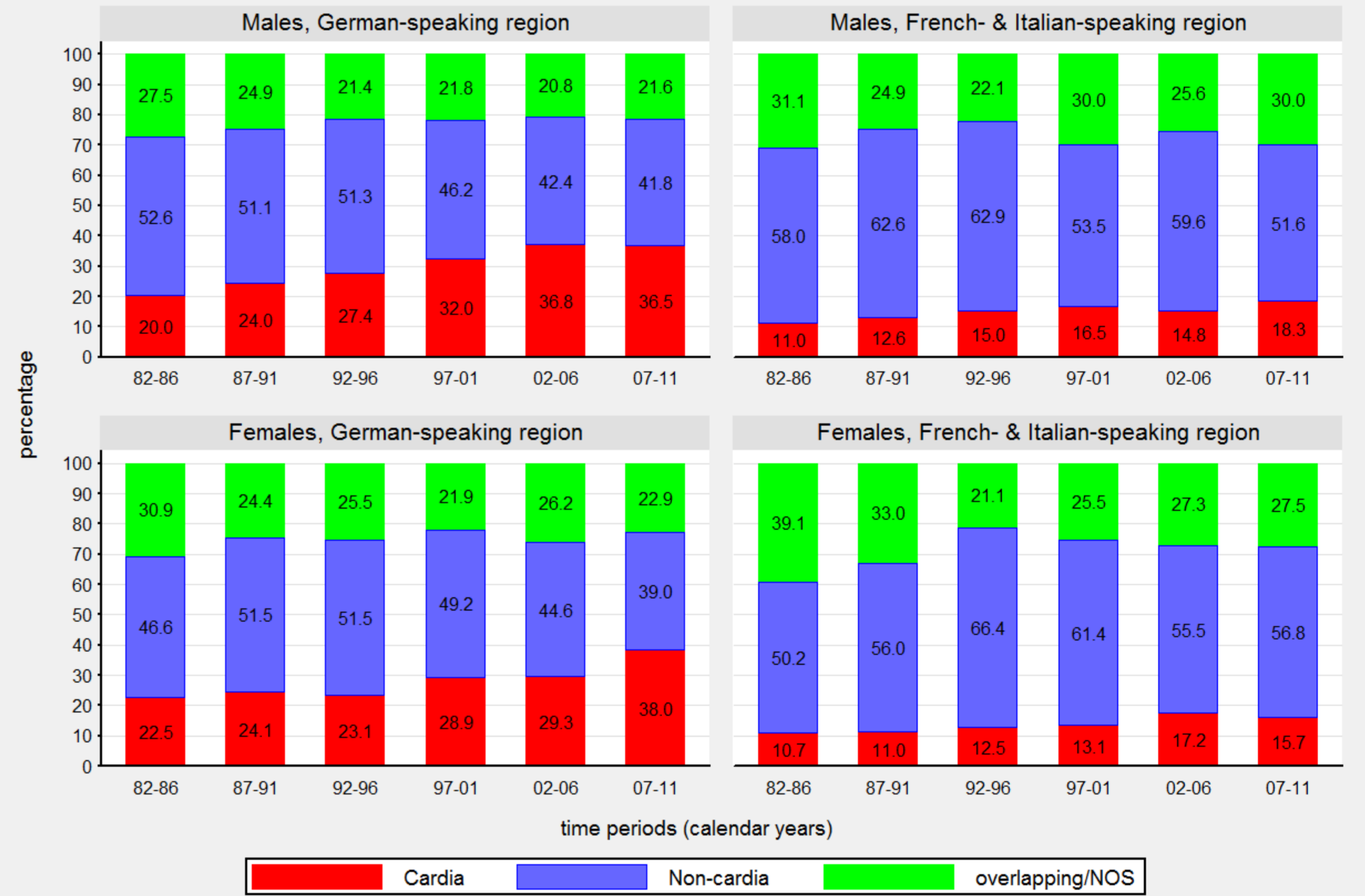


*based on histologically verified cases

Time trends in incidence rates of gastric cancer by location



Time trends in proportions of incident gastric cancer by location



In both sexes, ASIRs of OCs were higher in the FISP due to distinctly higher rates of oesophageal SCCs compared to the GSP. Overall, SCC was the predominant histologic subtype in OCs, but ASIRs decreased significantly in males. In contrast, a significant increase of oesophageal SCCs was observed in females of the GSP (EAPC 1.4%).

ASIRs in oesophageal ACs increased substantially in both sexes and language regions. The steepest increase was observed in males of the GSP with ASIRs of 0.8 per 100.000 PYs in 1982-1986 and 3.9 per 100.000 PYs in 2007-2011 (EAPC 6.8%). Consequently, proportions of oesophageal ACs rose markedly.

Most cancers of the upper/middle oesophagus were SCCs (86.6%), whereas ACs were the predominant subtype of the lower part (55.0%). In males, the increasing ASIRs of oesophageal ACs were accompanied by a clear increase of cancers in the lower part (EAP 2.7%). In females this relation was less distinct (EAPC 0.8%).

Cancer of the gastric cardia showed stable or slightly decreasing ASIRs whereas non-cardia GCs showed significant decreasing trends (EAPCs: -2.1 to -4.2). However, due to high proportions of GCs with unspecified subsite in early years, the results should be interpreted with caution.

CONCLUSIONS

As in other developed countries, the incidence of oesophageal ACs has risen in Switzerland. For SCCs, decreasing trends were observed in males whereas an increasing trend was found for females of the GSP most likely related to sex and region-specific lifestyle changes (i.e. tobacco and alcohol consumption). Reasons for the rising incidence in oesophageal ACs may include rises in the prevalence of gastro-oesophageal reflux and obesity, combined with decreases in the prevalence of *Helicobacter pylori* infection [5].

SELECTED REFERENCES

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