

# Incidence of stomach cancer in England, 1998-2007

## NCIN Data Briefing

### Background

Changes in the incidence of stomach cancer have been reported internationally. Known risk factors include *Helicobacter pylori* infection, diet and smoking.

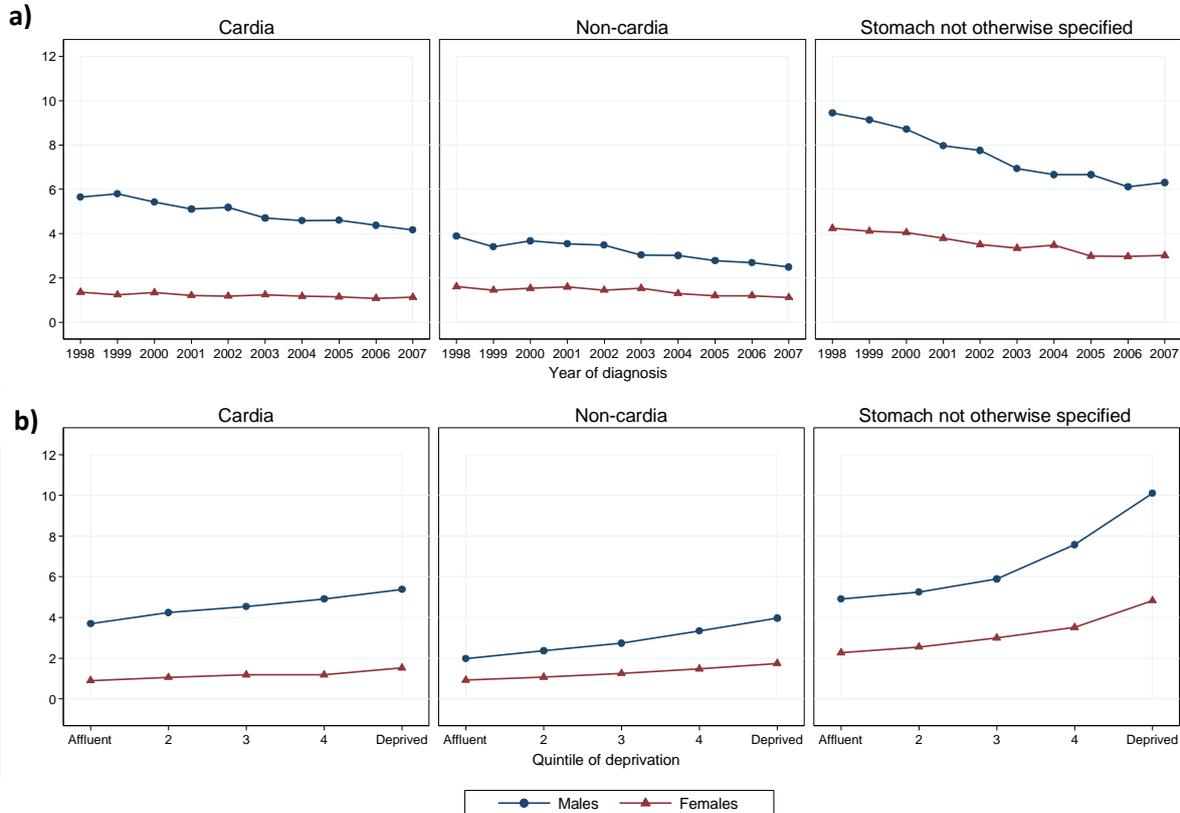
### Results

There were 71,929 patients diagnosed with stomach cancer in England between 1998 and 2007 who were divided into three subgroups (Table 1). The cardia subgroup includes cancers in the part of the stomach which is attached to the oesophagus, whereas the non-cardia subgroup includes cancers in the rest of the stomach. The incidence of cardia, non-cardia and stomach not otherwise specified (NOS) cancer decreased between 1998 and 2007, particularly in males (Figure 1a). The incidence of cardia cancer was around four times higher in males compared with females, whereas the incidence of non-cardia and stomach NOS cancer was twice as high in males. The incidence of stomach cancer was highest in more socioeconomically deprived areas for all three subgroups (Figure 1b).

#### KEY MESSAGES:

*Between 1998 and 2007 the incidence of stomach cancer decreased in England.*

*The declining prevalence of *Helicobacter pylori* infection and an increase of fresh food in the diet as opposed to salt preserved foods may have contributed to this decreasing incidence.*



**Figure 1: Age-standardised incidence rates per 100,000 European standard population (ASR(E)) by a) year of diagnosis and b) socio-economic deprivation quintile.**

## Methods

Data on 71,929 patients diagnosed with stomach cancer (ICD10 C16) in England between 1998 and 2007 were extracted from the National Cancer Data Repository. The NCDR contains information collected by the eight English cancer registries on all cancer patients diagnosed in their respective catchment areas. Three subgroups were defined: cardia, non-cardia and stomach not otherwise specified (Table 1).

**Table 1: Stomach cancer groups.**

| Stomach cancer groups   | ICD10 codes | Number (%)<br>of patients |
|---|-------------|---------------------------|
| Cardia  | C16.0       | 18,728 (26.0)             |
| Non-cardia<br>(including fundus of stomach, body of stomach, pyloric antrum, pylorus,<br>lesser and greater curvature of stomach (unspecified)) | C16.1-C16.6 | 15,340 (21.3)             |
| Stomach not otherwise specified   | C16.8-C16.9 | 37,861 (52.6)             |

Age-standardised incidence rates per 100,000 European standard population (ASR(E)), were calculated for males and females by year of diagnosis and quintiles of the income domain of the Indices of Deprivation 2007.

## Final note

The declining prevalence of *Helicobacter pylori* infection in developed countries and an increase of fresh food in the diet as opposed to salt preserved foods may have contributed to the decreasing incidence of stomach cancer. These factors may also be associated with socio-economic deprivation and therefore may explain the variation in incidence by deprivation. It is possible that the trends in incidence may be influenced by changing coding and diagnostic practices. Also, over half of these cancers were recorded with no information on anatomical subsite which meant it was not possible to assign these patients to either the cardia or the non-cardia subgroup.

### Acknowledgments:

This work is taken from the following publication: Coupland VH, Allum W, Blazeby JM, Mendall MA, Hardwick RH, Linklater KM, Møller H, Davies EA. Incidence and survival of oesophageal and gastric cancer in England between 1998 and 2007, a population-based study. *BMC Cancer* 2012, 12:11.

### FIND OUT MORE:

[Thames Cancer Registry](#)

Thames Cancer Registry is the lead cancer registry for upper gastrointestinal cancers

<http://www.tcr.org.uk>

### Other useful resources within the NCIN partnership:

Cancer Research UK CancerStats – Key facts and detailed statistics for health professionals

<http://info.cancerresearchuk.org/cancerstats/>

The National Cancer Intelligence Network is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research. Sitting within the National Cancer Research Institute (NCRI), the NCIN works closely with cancer services in England, Scotland, Wales and Northern Ireland. In England, the NCIN is part of the National Cancer Programme.